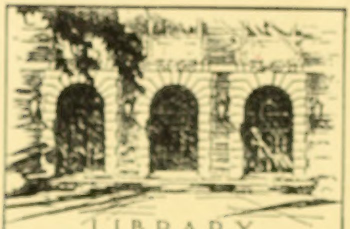

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FIELD MUSEUM OF NATURAL HISTORY.

PUBLICATION 200.

REPORT SERIES. VOL. V, NO. 3.

ANNUAL REPORT OF THE DIRECTOR

TO THE

BOARD OF TRUSTEES

FOR THE YEAR 1917.

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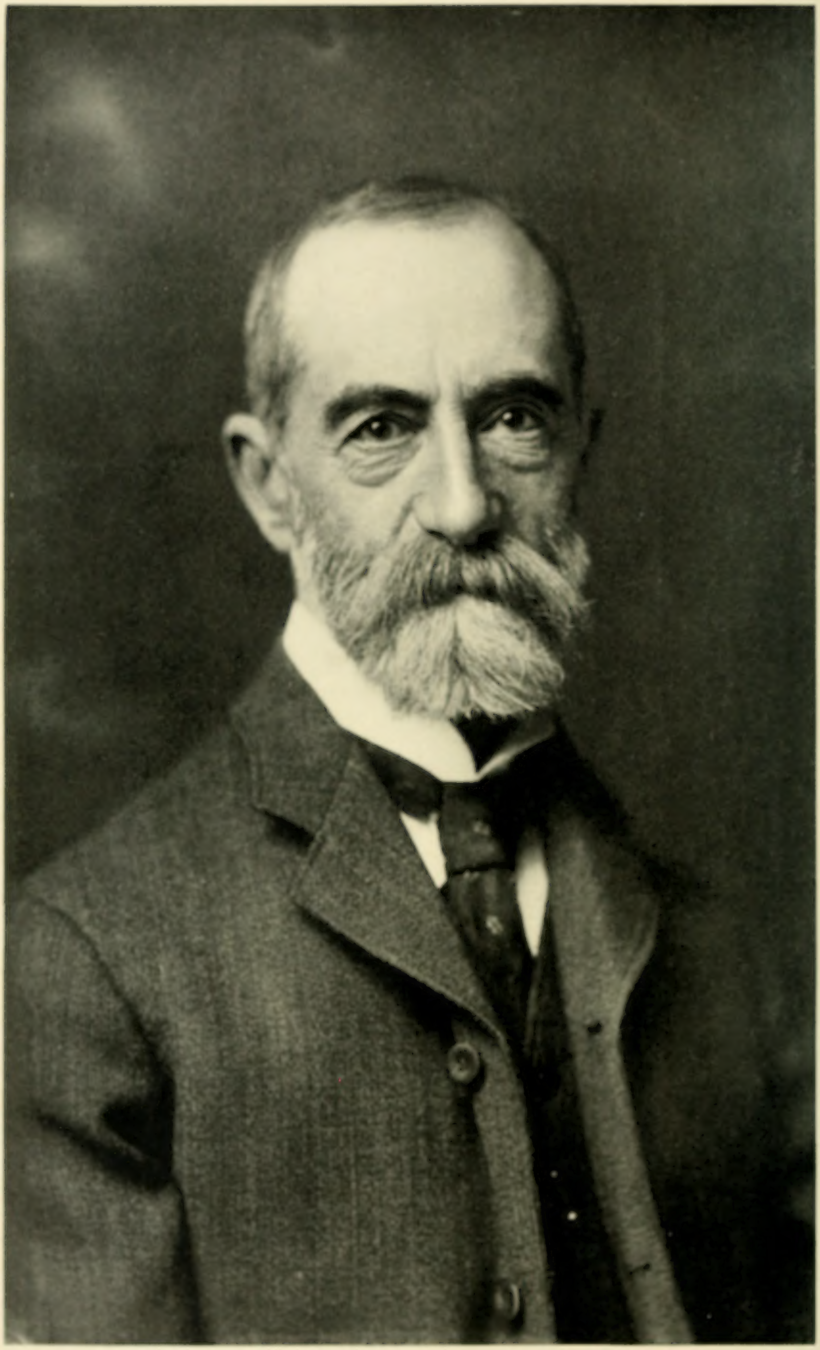
CHICAGO, U. S. A.
January, 1918.

BIOLOGY



THE LATE GEORGE E. ADAMS
An Incorporator and Trustee of the Museum

FIELD MUSEUM OF NATURAL HISTORY.

PUBLICATION 200.

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ANNUAL REPORT OF THE DIRECTOR

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FOR THE YEAR 1917.

THE LIBRARY OF THE
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CHICAGO, U. S. A.
January, 1918.

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1917

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Elsie Lippincott, *Librarian.*
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January 1, 1918.

ANNUAL REPORT OF THE DIRECTOR.

1917

To the Trustees of Field Museum of Natural History:

I have the honor to present a report of the operations of the Museum for the year ending December 31, 1917.

The progress during the year just closed in the construction of the new Museum building in Grant Park has been important and perceptible. This would naturally appear to be so to the casual observer, because the work has been, so to speak, above ground, but from the standpoint of the architects and general contractors this is also the fact. During the year the inside and outside fill was completed. The setting of the exterior marble commenced in May, and at the end of the year the east and west wings of the building were practically completed as was also the basement work of the north and south entrances. Sixty per cent of both the marble carving and the sculptor marble are complete. The brick work in all the exterior walls is finished up to the roof line, and the interior court walls have been completed to the second floor. There has been difficulty in obtaining brick for the court walls, which accounts for this work not being finished. All the steel floor beams are in place with the exception of the north and south entrances. It is believed that the steel for the roof of the entire building including the nave, but not the entrances, will be in place before April 1918. It is also anticipated that all the roofing including the tile composition and glass work will be finished not later than August first. Excellent progress has been made in the plumbing work and approximately fifty per cent of this labor has been completed. The steam fitting has progressed with the other work and about twenty-five per cent of this contract is installed, exclusive of the boilers, stokers and coal handling machinery. Levels are continually being taken for signs of settlement or movement, but thus far there has been no moving whatever either horizontally or vertically during construction.

With no ceremony and in the presence of only a few of the Trustees and executive officers of the Museum, a copper box was placed in a corner stone of the new building on Friday, September 28, 1917, at 2:00 o'clock P. M. The box contained a typewritten history of the Museum from its inception until the date indicated; a photograph of

UNIVERSITY OF ILLINOIS LIBRARY

Mr. Marshall Field, the founder of the Institution; a photograph of the present Museum building; a copy of Mr. Field's will; a copy of the proceedings of the first meeting of the reorganized Board of Trustees of the Museum, held January 22, 1894, etc.

The sudden death of Mr. Henry Field, grandson of the founder of the Museum, and also the death of Mr. George Everett Adams, both Trustees of the Institution, occurred during the year. Mr. Field had not completed his first year as a Trustee, but had manifested in various ways an interest in and intention to support the plans for the further development and advance of the Museum. Mr. Adams, an old and highly respected citizen of Chicago, was a member of the first Board of Trustees, as he was of the first preliminary committee which resulted in the organization of the Museum. He took great pride in the Institution and was deeply concerned in its welfare.

Special mention should be made of further and large additions by Mr. Edward E. Ayer to the Ornithological Library which bears his name. The Chalmers Crystal Collection, through an annuity of $500.00 provided by Mr. William J. Chalmers, has received important additions. A most generous gift of a large, valuable and rare collection of Navaho blankets, Indian baskets, costumes, etc., has been made to the Institution by Mr. Homer E. Sargent.

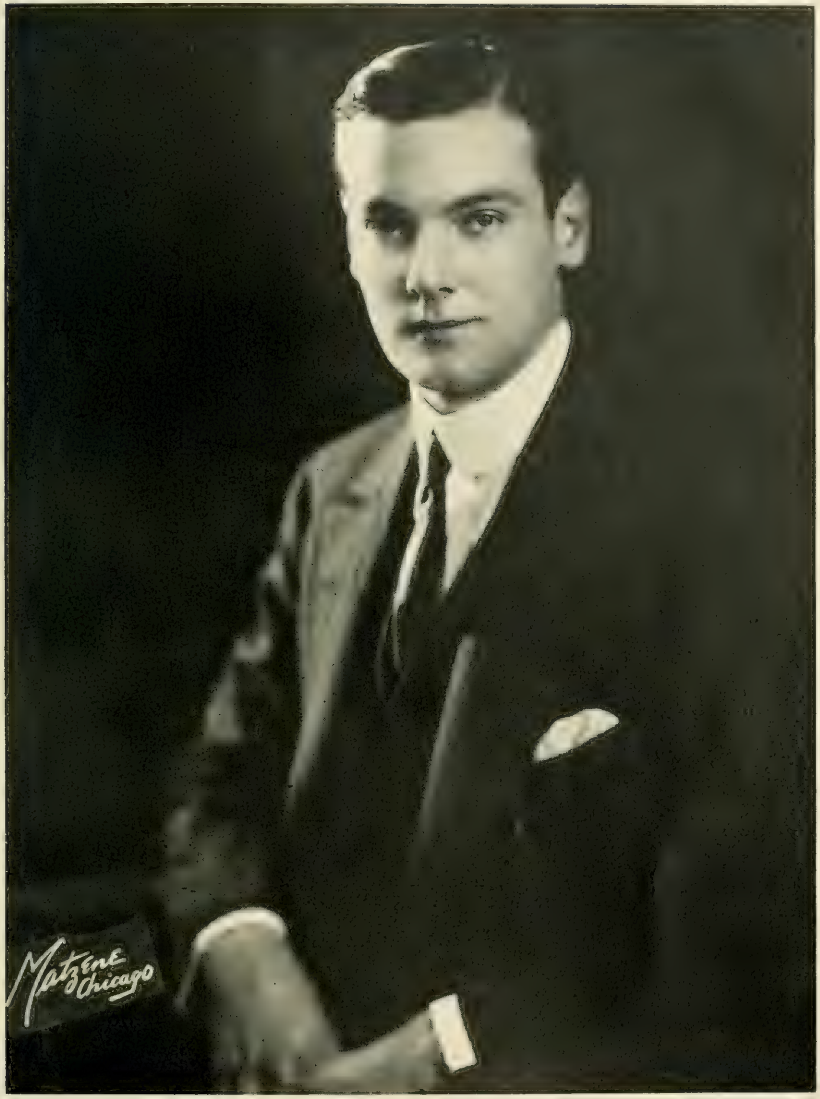
The installation of the Section of Plant Reproduction under the Stanley Field contribution in its new and commodious quarters, fully equipped with all the conveniences and appliances necessary to the work in this section, has been completed.

The endowment of the Stanley Field Museum Employees — Pension Fund has been consummated by final payment to the fund of $75,000.00 by its founder. There have been no demands upon the fund thus far.

Judge R. M. Barnes of Lacon, Illinois, has accepted the appointment of Assistant Curator of Oölogy. His active services will not begin until the period for installation in the new building is reached. In the meantime, however, Mr. Barnes will prosecute more or less work in his science at his home, where he has a most remarkable collection.

The engineers of Graham, Anderson, Probst & White, architects, have made a careful inspection of the present Museum building, and, with the exception of a few instances where minor repairs and alterations seemed to be necessary, have found the building safe in every way. Their recommendations for alterations and repairs have been carried out.

The attendance at the Museum has not been very large. Continued public interest in the Museum, however, is manifested by the addition of a considerable number of Life Members during the year.



THE LATE HENRY FIELD
A Trustee of the Museum

The influence of the N. W. Harris Public School Extension of Field Museum is widening by continually increasing the number of schools in which the cabinets are placed. In spite of the best efforts of the Extension, however, it is impossible to meet the demands that are made for this educational service.

Maintenance. — The Budget authorized by the Board of Trustees provided the sum of $156,911.00 for the maintenance of the Museum for the year ending December 31, 1917. The amount expended was $137,486.00, showing a balance in excess of the estimated expenses of $19,425.00. In addition to this amount $4,626.00 was expended by authority of the Board of Trustees for collections, special building repairs, etc., bringing the total expenditures for the year to $142,112.00.

Publications.— During the year six Publications were issued, comprising parts of four volumes, details of which follow:

Pub. 191.— Zoölogical Series, Vol. X, No. 15. The Fishes of the Fresh Waters of Panama. By S. E. Meek and S. F. Hildebrand. December 28, 1916. 159 pages, 16 halftones. Edition 1500.

Pub. 192.— Anthropological Series, Vol. XV, No. 2. The Beginnings of Porcelain in China. By B. Laufer. 1917. 106 pages, 7 halftones. Edition 1500.

Pub. 193.— Zoölogical Series, Vol. XII, No. 1. Notes on little known Species of South American Birds with Descriptions of New Sub-Species. By C. B. Cory. January, 1917. 7 pages. Edition 1500.

Pub. 194.— Report Series, Vol. V, No. 2. Annual Report of the Director for the year 1916. 71 pages, 11 halftones. Edition 2500.

Pub. 195.— Anthropological Series, Vol. VI, No. 4. Three Etruscan Painted Sarcophagi. By F. B. Tarbell. 9 pages, 9 halftones. Edition 1,000.

Pub. 196.— Ornithological Series. Vol. 1, No. 11. Contents and Index to Vol. I. 16 pages. 1896–1916. Edition 1,000.

It will be noted that number 11 concludes Volume I of the Ornithological Series. It also closes this Series. All future Ornithological Publications will appear in the Zoölogical Series.

These publications were distributed to individuals and institutions on the domestic mailing list and to those of foreign countries where exchange service is not suspended by the Bureau of International Exchanges. The nature of some of the Publications, as well as the increasing cost of all of them necessitated the re-classification of the mailing list. This has caused an elimination of some exchanges from which the Museum does not receive returns, and in sending to others previously receiving all the Publications, only such as are of special interest to their work. In taking account of the sales of the Publications, it is interesting to note the increasing number sold to individuals and institutions as well as to booksellers. The stock of Publications and halftones was moved during the year from Room 64 to Room 11. Two more cabinets were purchased to accommodate the halftones and zinc etchings that are filed numerically to date.

THE LIBRARY.—The books and pamphlets accessioned during the year were 1,641, bringing the total number of books and pamphlets in the Library to 71,316, which are distributed as follows:

General Library	45,737
Department of Anthropology	3,553
Department of Botany	7,193
Department of Geology	10,276
Department of Zoölogy	4,557

The operations in the Library during the year were largely normal in character and the routine work has gone on without interruption. The resources of the Library continue to be taxed by the members of the scientific staff for material desired in their research work and in the quest for information in working up collections for reference or exhibition that have been received without data. The fourth year of the war brings a great decrease in the literary output of all foreign countries, especially in works on natural sciences. Exchanges have practically ceased with some foreign countries, and from others receipts have been irregular. Notwithstanding these conditions, there has been a gratifying increase of accessions over last year of two hundred and fifty books and pamphlets. The outstanding event of the year is the purchases made and presented by Mr. Edward E. Ayer of many rare and beautifully illustrated works for The Edward E. Ayer Ornithological Library. Among these are: Gould, Icones Avium, 2 parts, 1837–38; Gray, Genera of Birds, 3 volumes, 1844–49, one of the works that rank in beauty of execution with Gould's and Audubon's works already in this library; Edwards, Natural History Birds, 4 volumes, 1802–6; Buffon, Histoire Naturelle des Oiseaux, 20 volumes, 1770–86; Booth, Rough Notes on Birds, 3 volumes; Thorburn, British Birds, 4 volumes, 1915–16; Swainson, Birds of Brazil and Mexico, 1841; Thienemann, Die Vögel Europas, 1825; Levaillant, Oiseaux d'Amérique et des Indes, volume 1, 1801; Oates and Blanford, Fauna of British India, including Ceylon and Burma. Birds, 4 volumes, 1889–98. Subscription was entered to Mathews' wonderfully illustrated "Birds of Australia" of which five complete volumes and five numbers of volume VI have been received. Eighteen orders for books have been filled, adding fifty-four books and pamphlets to the Departmental Libraries. Among those purchased are: Petrus Peregrinus de Magnate, a facsimile, 1900; Gray, China; Sykes, History of Persia; Steele, Translation from the Chinese of the I-li; Joly, Legend in Japanese Art; Audsley, Gems of Japanese Art; Shaw, Zoölogy; Waterhouse, Mammalia, pt. 2, 1839; Van Wijks, Dictionary of Plant Names, volume II. Subscriptions were also entered for "Mythology of all Races" and Hastings' "Encyclopedia of Religion." The periodical list is temporarily disorganized, as no subscriptions for a number of the foreign periodicals and serials are accepted at the present time by the agencies. During the year four hundred and thirty-seven books were received from the bindery. For the various catalogues 17,873 cards were written and filed. Two more sections were added to the card catalogue cabinets to accommodate the increase. Another bookcase was placed in the general reading room. The library again acknowledges its indebtedness to the City's libraries, to the Library of Congress, and the United States Medical Library for loan of books required by the scientific staff in the prosecution of their work. The number of people who visit the general library for the purpose of consulting its books shows an increase over previous years.

DEPARTMENTAL CATALOGUING, INVENTORYING, AND LABELING. — The work of cataloguing in the Department of Anthropology has been carried on with vigor during the year, the total number of catalogue cards prepared amounting to 6,119. These cards are distributed over the various divisions as follows: Jewelry from India 80; Archaeology of China and Tibet 196; Melanesian Ethnology 4,064; American Archaeology and Ethnology 1,121; Physical Anthropology 658. All these cards have been entered in the inventory books of the Department, which now number 38. The number of annual accessions amounts to 21, thirteen of which have been entered. The total number of cards entered from the opening of the first volume amounts to 147,670. A total number of 6,430 labels was turned out by the printer for use in the exhibition cases of the Department. These are distributed over the divisions as follows: Gunsaulus Collection of Sword-Guards 3,544; Philippine Ethnology 2,207; Melanesian Ethnology 113; Mexican and Central American Archaeology 546; Egyptian Pottery 16; Salish Ethnology 4. The printer supplied the Department with 2,575 catalogue cards. Several new label cards were added to the label file.

In the Department of Botany all prepared and organized material received during the year has been specifically catalogued. The entries made number 15,933, bringing the total entries to 469,736. This Department has written 4,145 labels for specimens sent out in exchange with other institutions. Of these 64 were of the economic material and 4,081 herbarium specimens.

All accessions received by the Department of Geology have been fully catalogued. The largest number of additions in any division was that to the paleontological collections, which show an increase of 3,745 specimens. The total number of entries made during the year was 3,740, bringing the total entries to 130,919. A total of 7,878 cards have been written. The labeling of the meteorite collection has been completed, 578 labels having been made and installed during the year for this purpose. Other series labeled are those of Chilean copper ores and Brazilian gold and iron ores. A total of 361 labels have been written during the year and 775 labels are ready to be printed. To the Departmental series of photographs, 163 prints were added, making a total of 2,911. All of these prints have been labeled, numbered and placed in albums in the order of their receipt.

The regular cataloguing of the collection of mammals in the Department of Zoology has proceeded as usual. The relatively small number of accessions has made it possible to devote considerable time to the revision and completion of early records and to the segregation of material unaccompanied by authentic data. A total of 432 original catalogue entries were made during the year. In the classified card catalogue, 1,500 cards were written in Mammalogy, which included a considerable proportion substituted for temporary cards made some years ago before the collections had been fully classified. Separate indexes are now maintained of (1) the general study or reference collection of mammals; (2) the collection of mammals on exhibition; (3) the mammal skeletons in addition to those of Osteology; (4) the dressed skins of large mammals kept in special storerooms. With the exception of those of the dressed skins, these catalogues are now practically all revised and completed to date. The serial or synoptic collection of mammals on exhibition has been reclassified and new labels have been written throughout. Careful consideration of the matter of tagging and labeling the specimens in the Division of Ichthyology and Herpetology in the most efficient manner, resulted in the purchase of a numbering machine for stamping of tin tags, and in printing a uniform series of labels, to be placed against the inner side of the jars. The catalogue in this Division has been rearranged and is being rewritten as the study of the collections proceeds. Over 1,000 labels for the reinstallation of the shell cases were prepared. The entries made in the Department of Zoology numbered 1,024, bringing the total to 99,699. The cards written number 1,654, making a total of 34,122.

The following table shows the work performed on catalogues and the inventorying accomplished:

	No. of Record Books	Total No. of Entries to Dec. 31, 1917	Entries During 1917	Total No. of Cards Written
Department of Anthropology . .	38	149,457	6,119	147,670
Department of Botany	58	469,736	15,933	75,620
Department of Geology	22	139,919	5,246	7,878
Department of Zoology	40	100,723	1,024	35,622
The Library	14	105,720	2,890	243,360
Section of Photography	20	117,848	3,393	. . . . . .

ACCESSIONS. — The Department of Anthropology received as a gift from Mr. Edward E. Ayer a rectangular cooking vessel and a large house lamp, both of steatite and both representing types from the Eskimo east of Point Barrow, Alaska, entirely new to the collection in the Museum. Mr. Ayer also presented a metate of Mexican type and a muller dug up some years ago at San Juan Capistrano, southern California. This is a fine specimen of perfect workmanship and superior to similar objects heretofore possessed by the Museum. Mr. Charles F. Rauchfuss of River Forest made an important addition to the Illinois archaeological collections of the Museum by his gift of 250 specimens, chiefly chipped objects, from Pope County. Mr. Homer E. Sargent presented to the Museum a small collection of Salish basketry, which will be of value in the study of technique, materials, and designs of that region. This collection was made in connection with a new research into Indian basketry initiated and patronized by Mr. Sargent. With the exception of the Stanley McCormick gifts resulting in the Hopi collections, no Southwest accession is comparable to the recent gift of Mr. Homer E. Sargent, the most prominent accession of the year. This group of eighty textiles presents the result of judicious and discriminative collecting extended with tact and taste over a period of more than ten years, and includes a great deal of material that at this time would not be obtainable. It comprises 37 Hopi and Navaho blankets of old designs, many of them bayetas; 9 Navaho squaw dresses of excellent weave and varying decorative motives; 6 Navaho woman's mantles; 1 Navaho man's woven shirt; 2 Chimayo blankets; 1 two-faced Mexican serape; 5 very rare Pueblo woman's ceremonial robes; 7 mantles or shawls from the same region; 2 fine Zuñi dresses; 3 Pueblo woman's belts; 4 ceremonial kilts for men; 2 ceremonial sashes and other articles of the Southwest weaver's skill. Aside from their historical and ethnological significance, many of these textiles have decidedly artistic merits and qualities both as to design and coloration, and may compete with the best productions in Oriental rugs. The album presented by Mr. Tokumatsu Ito is deserving of especial mention. It contains 92 ancient wood-engravings representing favorite deities of the Japanese pantheon and sold by the temples to devotees and pilgrims, who keep these pictures as charms. This is a unique collection made in the course of many years, and its value is enhanced by a complete transliteration and translation of the legends printed on the engravings, which Mr. Ito himself has kindly supplied. A recent purchase comprises about 300 Eskimo objects acquired by Mr. Petersen at Nome, Alaska, during his residence there. The whole collection adds materially to the strength of present exhibits from the Arctic regions. It is especially notable for the great variety of fine mammoth and walrus ivories, and small ivory objects, as carved hair combs, labrets, animal carvings, float plugs, belt fastenings, dart heads, etc., along with many fine larger artifacts. Also some grave material is included in this collection. The collections from the Far East were enriched by the purchase of six exquisite ceremonial ivory tablets secured by Dr. John C. Ferguson, state counsellor of the Chinese Government. These specimens are exceedingly rare, and can be obtained only from high officials who inherited them from their forefathers. They come down from the Ming dynasty (1368–1643), and were used by dignitaries of rank for jotting down memoranda and to be held in their hands at audiences with the emperor. The most notable accession of the year in the field of Latin American archaeology was a collection of artifacts from the region of Casas Grandes, Northern Mexico. These were excavated by Captains J. W. Wright and A. T. Cooper at Colonia Dublán, head-quarters of the American punitive expedition, and presented to the Museum through General Pershing. The collection consists principally of stone implements, and includes several of the large rectangular trough-shaped metates, characteristic of this region, which are of considerable interest and very rarely seen in museums.

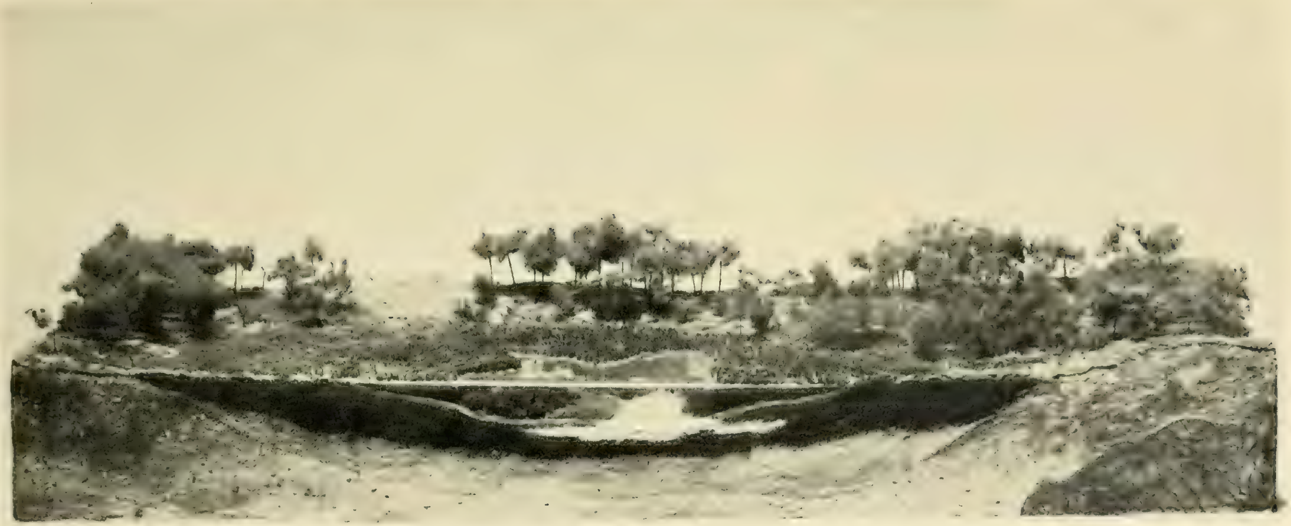
The Department of Botany received the following important additions to its herbarium series during the year: The private herbarium of John Murdoch, Jr., presented to the Museum by his widow. It contains 3,322 sheets of plants, principally his personal collections in Massachusetts, Colorado, California and South Dakota. Other notable accessions were: Ames' Orchids 84; Bebb, Illinois 174; Blanchard, Vermont and District of Columbia 215; Britton, Britton & Wilson, Cuba and Isle of Pines 763; Collins, Bermuda 259; Cook, Canary Islands 383; Fernald, Newfoundland 201; Purpus, Mexico 91; Gates, Illinois 1,447; Gaumer, Yucatan 760; Grunemann, Illinois 125; Heller, California and Oregon 403; Hill, Illinois and Indiana 1,769; King, Massachusetts 181; Lansing, Illinois 293; Leiberg, Oregon 514; Letterman, Missouri 285; Levine, China 1,046; McDonald, Illinois 111; Ridgeway, Illinois 169; Roosevelt African Expedition 135; Standley, Florida 101; Stewart, Galapagos 154; Vasey, Illinois 238; and Walker, Alaska 385. The additions to the organized herbarium during the year comprised 15,439 sheets. The regional distribution of these is shown in the following tabulation. This represents only the regions to which additions were made and not the herbarium as a whole:

LOCALITY	Added this Year	Total in Herbarium
NORTH AMERICA (in general)	1	74
Arctic regions		
Northumberland Island	8	8
Alaska	240	1,391
Admiralty Island	13	13
Baranoff Island	14	14
Bell Island	8	8
Chicagoff Island	2	2
Etolin Island	2	2
Heceta Island	13	13
Kuiu Island	17	17
Prince of Wales Island	39	230
Revillagigado Island	11	11
Woewodski Island	1	1
Wrangel Island	4	4
Yakobi Island	21	21
British America:		
Prince Edward Island	26	38
Queen Charlotte Island	1	98
British Columbia	5	1,446
Newfoundland	295	766
New Brunswick	16	796
Nova Scotia	32	615
Ontario	7	1,667
United States:		
Alabama	19	1,559
Arizona	5	8,195
Arkansas	32	465
California	477	24,750
Colorado	548	9,806
Connecticut	20	654
Carolina, North	22	4,543
South	6	1,098
Dakota, South	548	1,854
Delaware	3	1,337
District of Columbia	144	2,668
Florida (exclusive of Keys)	140	20,285
Key West	1	145
Georgia	15	3,986
Idaho	11	3,661
Illinois	3,781	26,967
Indiana	539	6,796
Indian Territory	2	314

LOCALITY	Added this Year	Total in Herbarium
United States:		
Iowa	10	1,816
Kansas	3	540
Kentucky	3	1,371
Louisiana	4	1,387
Maine	243	1,645
Maryland	89	1,289
Massachusetts	1,955	5.345
Michigan	100	3.531
Minnesota	8	2,375
Mississippi	9	1,989
Missouri	288	3,882
Montana	9	4,038
Nebraska	2	495
Nevada	3	1,273
New Hampshire	104	1,658
New Jersey	11	3,132
New Mexico	79	3.581
New York	111	6,568
Ohio	5	2,048
Oregon	617	9,018
Pennsylvania	21	10,151
Rhode Island	10	600
Tennessee	10	1,367
Texas	159	9,766
Utah	18	2,566
Vermont	267	3.498
Virginia	45	2,768
Washington	74	7.494
West Virginia	26	2,028
Wisconsin	70	5,001
Wyoming	11	1,580
Yellowstone National Park	6	534
Bermuda	260	929
Bahama Islands		
Frozen Cay	2	25
New Providence	1	2.445
Cave Cay	2	38
West Indies:		
Cuba	199	11,148
Grenada	13	814
Isle of Pines	608	1,266
Jamaica	102	7.320
Martinique	2	620
Porto Rico	3	4.730
CENTRAL AMERICA:		
Costa Rica	13	608
Guatemala	4	3,058
Mexico	165	37,148

LOCALITY	Added this Year	Total in Herbarium
CENTRAL AMERICA: (continued)		
Lower California:		
Guadeloupe Island	2	44
San Benito Island	2	11
Yucatan	782	6,752
Panama	77	180
SOUTH AMERICA:		
Argentina	5	1,070
Chile	1	253
Dutch Guiana	1	4
Peru	2	162
Trinidad	7	494
Tobago	3	41
Venezuela	2	704
Curacao	1	100
Margarita Island	20	353
EUROPE:		
Great Britain (in general)	5	1,426
England	2	2,464
Scotland:		
Arran Island	1	2
Austria	5	7,778
France	1	8,338
Germany	3	8,658
Greece	1	697
Sweden	9	9,618
AFRICA:		
British East Africa	122	123
Canary Islands:		
Gran Canaria	389	391
Teneriffe	65	112
Congo	6	7
Madagascar	14	25
Nubia	1	11
Uganda	23	27
ASIA:		
Asia Minor	1	105
China, South	921	1,583
Songaria	1	46
India	4	1,063
Syria	1	363
Philippines	37	8,949
OCEANIA:		
Australia, South	2	4
Hawaiian Islands, (in general)	1	490
Horticultural	94	2,830
Illustrations mounted as Herbarium specimens	159	2,191

The Department of Geology received a number of valuable accessions during the year by gift, some of which may be specially mentioned as follows: Through a fund generously donated by Mr. William J. Chalmers, about sixty specimens of crystals have been added to the Chalmers collection. Up to this time this collection, which was first exhibited at the Paris Exposition of 1900, had received only a few additions, but the increase made this year and the announced intention of Mr. Chalmers to continue its active enlargement, will result in forming a very superior collection. Among the specimens added to the collection this year was a well-formed octahedron of diamond from South Africa nearly an inch in length and weighing 20 9/16 carats. Through the kind offices of Mr. Chalmers also, a donation of 108 specimens of the copper ores and minerals of the Chuquicamata district in Chile was received from the Chile Exploration Company of Chuquicamata, Chile. The series presented includes specimens of oxide ores from the veins, sulphide ores from the veins, and oxide, sulphide and mixed ores from the steam-shovel workings. Chalcocite, enargite, chalcopyrite, bornite, malachite, cuprite, brochantite, kröhnkite and atacamite are among the minerals represented. By thus affording a representation of the ores of one of the most notable copper districts of the world, this series forms an important addition to the collection. Mr. W. J. Chalmers was also instrumental in securing from the St. John del Rey Mining Company, Ltd., of Morro Velho, Brazil, through Mr. George Chalmers, Superintendent, a series numbering about forty specimens, of the ores and rocks of some of the chief gold mines in Brazil. The series received included typical ores and rocks of the Morro Velho mine, well known as the deepest gold mine in the world; a full representation of the gold and iron ores of the Gongo Socco and Serro do Curral mines showing especially the peculiar itabirite and jacutinga ores; and specimens of gold ores and country rocks from the Cuyaba and Raposos mines. Full descriptions and a map accompanied the specimens. These series add much of value to the Museum ore collections. A large collection containing many attractive specimens, consisting chiefly of copper minerals from mines in the Lake Superior district, but including also important specimens of Arizona copper minerals, Cripple Creek gold ores, etc., was presented by Nathan F. and Alfred F. Leopold. A specimen of sheet copper partly removed from the matrix, a sickle-shaped mass of copper over two feet in length showing many crystal planes, and an unusual specimen of malachite, are perhaps the most remarkable things in the collection. There are also included specimens of many kinds of occurrences of native copper, many of them crystallized, of calcite and copper, tellurides of gold, arsenides of copper, amethyst, etc. As many of the specimens were obtained from mines or localities no longer accessible, they have an



Model Illustrating Conversion of a Glacial Lake to a Peat Bog
Scale, 30 feet equals one inch

added value and importance on this account. This collection numbered 450 specimens. Through the kindness of Mr. Alpheus F. Williams, General Manager of the De Beers Consolidated Mines Company of Kimberley, South Africa, there was received from that Company an interesting collection showing the rocks and minerals which accompany the diamond in its occurrence at Kimberley. Some of the minerals, such as zircon, olivine and garnet, received in this collection were of gem quality. Specimens of the concentrates from which the diamond is obtained were also included. The rocks received included melaphyre, eclogite, shale, diabase, "blue ground," and others indicating the character of the formation from which the diamonds are obtained. Another valuable gift received was a collection of about 3,600 specimens of invertebrate fossils and minerals from Charles F. Rauchfuss. The fossils were principally from formations of Chester age in southern Illinois, a region which before had been little represented in the collections. The series of Pentremites and Archimedes in this collection was especially large and comprehensive, the Pentremites numbering nearly a thousand specimens representing five determined and several undetermined species, and the Archimedes numbering about one hundred specimens representing at least ten species. A large series numbering about one thousand specimens representing more than seventy-five species of fossil brachiopods from the Chester and other formations was also included, and there were about four hundred specimens representing seventy-five species of fossil corals chiefly from the Falls of the Ohio. A number of producers of bog marl and similar substances used in the manufacture of Portland cement in neighboring states, kindly donated specimens of this material in order to increase the representation of these products in the Museum. The courtesy of the following firms is gratefully acknowledged in this connection: Peerless Portland Cement Company, New Egyptian Portland Cement Company, Newaygo Portland Cement Company, New Aetna Portland Cement Company Peninsular Portland Cement Company, and Wolverine Portland Cement Company. Small collections of ores and minerals were presented by Mrs. J. B. Ludlow and C. W. Pomeroy. Mr. Fred Patee presented a number of specimens of highly modified hematite crystals from a new locality in New Mexico. Several valuable accessions were received through exchange. From Yale University there were thus received a beautifully preserved skull with jaws and a partial skeleton of the short-legged, aquatic rhinoceros, Teleoceras. This was from the well-known locality at Long Island, Kansas. Besides its excellent state of preservation the form is of interest as being that of the last representative of the rhinoceros family in America. From Amherst College there was received by exchange a partial skeleton of the fossil camel Stenomylus from Nebraska, and a pair of jaws and pelvis of Leontina, a large South American ungulate. A well-preserved skull of the Permian reptile, Diplocaulus, was obtained from the University of Chicago by exchange. From W. T. Watkin-Brown of Sydney, Australia, twenty-two specimens of Australian minerals were received by exchange. These included rare examples of native bismuth, bismuthinite, molybdenite and feldspars such as ordinarily cannot be readily obtained. Eleven specimens of an interesting occurrence of pyrite from Rolla, Missouri, were obtained from R. S. Dean by exchange, and a brilliant specimen of artificial bismuth crystals from William Thum by the same means. Twenty specimens of minerals were purchased, the most important being two showy specimens of violet apatite crystals from Maine and two large specimens of the newly discovered vanadium minerals hewettite and meta-hewettite. Among specimens acquired by collection may be mentioned 432 specimens of the Colby meteorite and twenty-four specimens of sand-carved boulders from Maine.

A noteworthy acquisition in the Department of Zoology during the year was the donation, from Mrs. Anna Sala Makovickyi of Oak Park, Illinois, of a collection containing approximately 2,700 domestic and exotic butterflies, moths and beetles gathered by her former husband, Mr. August Sala. Mr. Hugh T. Birch of Chicago presented to the Museum a cabinet of drawers containing 258 specimens of butterflies moths and beetles, mainly from Colombia, S. A. To Mr. B. Preston Clark of Boston, the Museum is again indebted for some very desirable additions to its series of sphinx moths. The specimens of mammals received from the Collins-Day South American Expedition were accessioned during the year. The synoptic collection of mammals received a number of additions, mostly of species of small size. These include the Cape Jumping Hare, Parry's Ground Squirrel, Zulia Squirrel, Redwood Chipmunk, Prairie Hare, Roof Rat, White-footed Mouse, Red-backed Mouse, and Lemming Mouse. A few specimens of mammals, from French Guiana, were purchased. An important accession of birds was secured by purchase from W. H. Rosenberg of London, England, consisting of 404 skins, representing many rare species from South America, nearly all of which were new to the Museum collection. Mr. T. L. Hankinson donated an interesting series of fresh-water fishes from Cuba and Florida, and Mr. Paul D. Ruthling presented some salamanders and lizards from southern California. An important accession consists of specimens of fishes, amphibians, and reptiles from California collected by the Assistant Curator. In this consignment were included the most complete single collection of tide pool fishes ever made in that state, and a series of desirable fishes, mostly from Japan, presented by Stanford University. The accessions may be summarized as follows: Purchases: 41 mammals and 404 birds; By gift: 169 mammals, 5 birds, 1 nest and eggs, 213 fishes, 3,000 insects and 223 shells; By exchange: 6 fishes; By expeditions: 379 fishes and 180 insects.

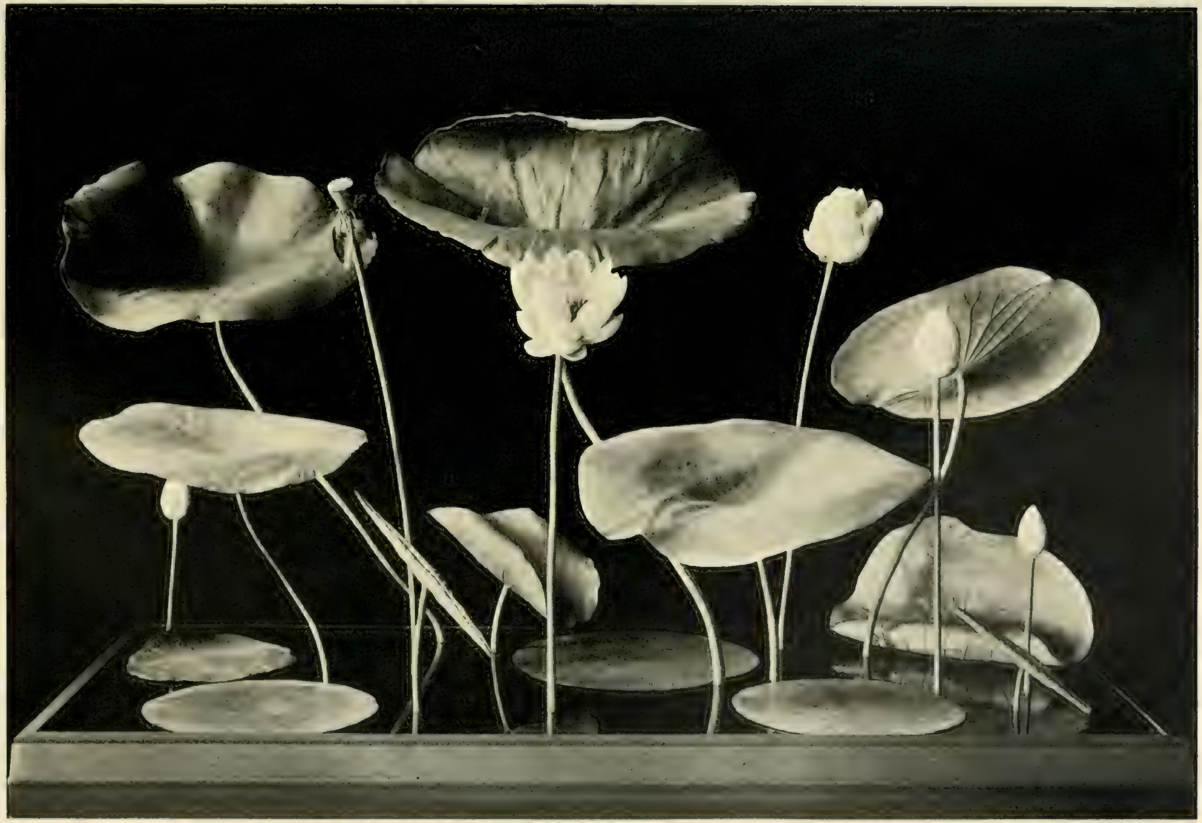
EXPEDITIONS AND FIELD WORK. — Several short trips were made by the various members of the staff of the Department of Botany to Indiana and northern Illinois, for the purpose of obtaining living plant material for the Section of Reproduction. The Curator accompanied by an assistant made a day's trip to the interesting lake shore region between Waukegan and Beach, Illinois, on which they collected 56 plants for the herbarium. Preparator Lansing visited the Galena region, in Jo Daviess County, Illinois, collecting 205 plants for the herbarium and 414 for exchange purposes.

A trip was made by the Curator of Geology to Colby, Wisconsin, in order to secure specimens of the meteorite which fell there on July 4th. By excavating the soil at the point of fall the Curator succeeded in collecting about 20 pounds of the meteorite in the form of fragments which had been naturally formed by its shattering in striking the earth. There were 432 fragments so obtained, some of them being over 100 grams in weight. A large piece of a second individual, which fell about half a mile distant, was also secured. In addition photographs were made at the point of fall and descriptions of the phenomena of the fall obtained from a number of eye-witnesses. A remarkable deposit of wind-carved boulders in Maine was visited by the Curator and twenty-four specimens illustrating typical results of wind-action collected from the deposits. Some specimens illustrating glacial river phenomena were also collected in the same vicinity and about thirty photographs illustrating glacial phenomena made. The Assistant Curator of Geology spent ten days at Natural Bridge, Virginia, securing material and data for a model of the Natural Bridge. Besides taking more than one hundred photographs, he made a stadia survey of the region and plane-table surveys of portions of special importance. It is expected that with this data it will be possible to make a model which will be an accurate and faithful replica of Nature. The survey made by the Assistant Curator is, so far as known, the first detailed survey of the Bridge that has been accomplished since that conducted by Thomas Jefferson shortly after the close of his term as President. The courtesy and coöperation of Mr. T. H. Gurney of the Chesapeake & Ohio Railroad contributed materially to the success of the undertaking, as did also that of Mr. J. A. Mundy, President of the Bridge Company, who arranged for free admission to the Bridge grounds, and provided the services of one of his employees as rodman. The Assistant Curator also spent two days in the northern Illinois lake region making detailed studies of the floating bogs of these lakes and their peat and marl deposits, in order to obtain data for making a model of a glacial lake. Besides the study material brought in, some additions to the permanent collections were thus procured.

In October the Assistant Curator of Ichthyology and Herpetology, accompanied by Taxidermist Pray, spent nearly two weeks in Wisconsin collecting material for exhibition purposes, the work being carried on along the Mississippi River, chiefly on Lake Pepin. 60 specimens for mounting were obtained, representing twenty-seven of the important food fishes of the Mississippi Valley. This material will cover the larger part of at least one side of a panel case, and will serve as the basis of three or four groups, for which the accessory material was also gathered. The success of this expedition depended to a considerable degree upon the cooperation of certain members of the Association of Commercial Fishermen and Clammers. Upon the request of the Association, the Museum sent as a loan a collection of twenty-two mounted food fishes, with labels, to the annual meeting of this organization held in La Crosse on November 30th. The fishes were also exhibited in the High School of that city. On three different occasions the lagoon in Jackson Park, adjacent to the Museum, was seined and numerous specimens were obtained, some of which have been mounted for exhibition. The Assistant Curator has collected a considerable number of local fishes, amphibians, and reptiles in the vicinity of Chicago while engaged in his work for the exhibition series. Frequent one-day trips were made and one week in August was spent in the sand dunes of Indiana collecting material for this Division. As soon as the summer had advanced sufficiently to make collecting profitable, a number of field trips were made for insect group material by the Assistant Curator of Entomology and his assistant. For this purpose Palos Park, Illinois, was visited at intervals in order to obtain specimens, particularly dragonflies, and accessories for a group illustrating the insect life of ponds. To represent the most conspicuous insects found in the vicinity of small, running streams, the region between New Lenox and Joliet was likewise visited at intervals. Toward the end of summer several trips were made to Edgebrook and other nearby places for material suitable for a group of tomato worm moths. Several days were also spent at Miller, Indiana, in order to secure the insects and accessories typical of sand areas, but, as the collecting season had already well advanced, it was not possible to secure a series of some of the early stages of the most characteristic forms. As a result of these trips enough material, including accessories and photographs suitable for backgrounds, has been obtained for two, probably three, habitat groups and one of an economic nature. In addition to the group material, a number of duplicate specimens were gathered for the serial collection.

INSTALLATION, REARRANGEMENT, AND PERMANENT IMPROVEMENT. — All installation of cases in the Department of Anthropology during the year was carried on systematically with strict regard to conditions in the new building and in accordance with the newly adopted and approved plan of arrangement in the new quarters. The principle of avoiding duplication as far as possible and setting quality above quantity has been applied consistently. Duplicate material is now divided into two groups, designated as study and exchange collections. The study collections are treated on the same basis as the public exhibits, receiving the same care and attention, and will be made accessible to specialists and students. Detailed lists have been prepared of all collections available for exchange. A total of 55 cases has been installed, six of these being four-foot cases, and nearly all of them being completely labeled. The material installed in these cases is distributed over the various divisions as follows: Melanesian Ethnology 1 case; Philippine Ethnology 37 cases; American Ethnology 3 cases; Mexican Archaeology 5 cases; Jewelry of India 1 case; Japanese Sword-Guards 2 cases; and Egyptian Archaeology 6 cases. The case added to the Joseph N. Field Hall illustrates hunting, fishing and miscellaneous industries of New Britain. As soon as the cataloguing of the collections from New Guinea, now under way, is completed, the installation of this Hall will be rounded out. In accordance with the new policy laid down for installation and following the definite assignment of space in the new building, the Philippine collections were carefully overhauled so as to bring out to greatest advantage the characteristic traits of the various tribes without needless duplication of material. This necessitated the reorganization and relabeling of a large part of the cases on exhibition. However, the results are gratifying; the number of exhibition cases having been reduced from 127 to 79 without any characteristic culture being omitted, and without any essential features being sacrificed. Many labels have been rewritten, and much new information added, while the exhibits in their general appearance have been greatly improved, and, owing to the process of condensation, have gained in clear and direct representation. Various re-arrangements were further made in eight cases, and labels were added to about ten others. All cases of the Philippine collection were placed in new order according to the geographical distribution of tribes. The duplicate material withdrawn from exhibition has been divided into two groups; one for study purposes and the other for exchange. A life-size group of six figures has been completed and is ready for exhibition in the new building. This group illustrates the production of cloth by the Bagobo of Mindanao in the various stages of manufacture, from the stripping of the so-called Manila hemp (*Musa textilis*), through the overtying and dyeing of the threads, to the weaving and polishing of the cloth. It will be an interesting addition to the Philippine Hall. The labeling of the African collection installed last year was completed during the summer. One case of Hopi head-dresses for ceremonial occasions has been installed in the East Court. Additional accessions of Hupa, Yurok and Karok festival dress and head plumes have necessitated the expansion of the old case containing varied ceremonial paraphernalia into two cases, one of woman's festival attire, and the other of costumes grouped according to the dances in which they were used. The entire Mexican collection is now being overhauled, grouped according to culture areas and tribes, and permanently installed. Specimens not selected for exhibition are reserved as study collections, and duplicates are listed for possible future exchange. The receipt of the Pershing Collection has necessitated a reinstallation of the two cases of Casas Grandes pottery presented last year by Mr. Homer E. Sargent, in order to permit a combination of the two as an integral unit. In addition have been installed a case of archaeological material from the Totonac and Huaxtec region of Vera Cruz, containing the well-sculptured stone yokes typical of this region, a four-foot case containing the best large stone sculptures from the Valley of Mexico from various collections, and two cases illustrating the ethnology of the Tarahumare, Tepehuane, and Tarascan, principally from the Lumholtz Collection. All cases are completely labeled as installed. Jewelry collected by G. A. Dorsey in British India has been installed in a wall-case of the Gem Room. The Gunsaulus collection of Japanese sword-guards and sword-fittings, described in the last annual report, has been installed in two standard cases, temporarily placed in Alcove 122 of the North Court. One of the cases contains 468 objects, the other 373, arranged on narrow shelves in such a way that each piece can be plainly viewed and studied from both sides. This is important, as the majority of sword-guards are decorated or inscribed both on the obverse and reverse. For this reason, each sword-guard had to be supplied with two labels, one explaining the obverse, the other the reverse. There is reason to believe that this is the first attempt in any museum to display sword-guards in a rational and intelligent manner. In general, a chronological principle of arrangement has been adopted, but within the various periods groups of art-schools and subjects are singled out, so that this material becomes a fit object-lesson for the study of the development of Japanese design and art-motives. Plans have been laid out for the re-organization of the Egyptian collection and its adaptation to the new surroundings, for which the old-style cases proved unfit. Six standard cases are now completed, and comprise stone tomb tablets, portrait statuary, and statuettes, vases carved from alabaster and other stone, and pottery, the latter filling two cases. One of these contains vessels of the Prehistoric Empire, of Ptolemaic and Roman times, along with amphorae and ostraca collected by Mr. Ayer. The other case comprises Greek, Cypriote and Coptic pottery, Roman vessels and lamps of clay, Menas flasks and other amphorae. All this material is now displayed to greater advantage and in conformity with modern methods. On January 11, Hall 11 adjoining the South Court was vacated to make room for the storage of publications, which required a re-arrangement and adjustment of the cases illustrating the ethnology of the Kwakiutl and Tlingit. The house-posts and 3 cases were placed in Hall 12. One case of Athapascan ethnology from Alcove 109, South Court, was placed in Hall 4. Two cases from Hall 11 were transferred to Alcove 109, South Court. One case from Hall 11 was removed to Alcove 111, South Court, along with a Tlingit case from Alcove 109. The case showing house-models was placed in Hall 10. Material from Costa Rica, Colombia, Peru, and Bolivia was placed in storage in Hall 69. After the new arrangement of the Philippine section, the East Annex was cleared of all new or vacant cases, scattered around in the various halls, and those are now concentrated in Hall 37. Four old Geology cases containing pottery and Gilbert Island armor of the Joseph N. Field Collections were stripped of their contents which were placed in permanent storage cases in Hall 68. The requisitioned cases were transferred to other departments of the Museum. The two Peabody wall-cases in Alcove 122, North Court, containing collections from India, were stored in Halls 68 and 69. Other material from India, including the wooden carvings long stored in the East Annex, has been placed in permanent storage in Hall 69. The contents of six standard cases of the oldest type in Hall 4, containing Eskimo ethnology, was transferred to standard cases of more recent make. The former cases will be used in the display of Mexican archaeology now being installed. As fast as the Peabody cases in the East Court have been vacated for re-installation, they have been used for storage in the West Annex of all study and exchange material, thus housing the specimens in less space and more safely than heretofore. Re-arrangements were made in 9 cases, and 61 cases were poisoned. Over 600 specimens, chiefly from the South Sea Islands, Philippine Islands, Egypt and Mexico, were repaired or treated during the year. More than 11,000 new numbers have been marked on specimens.

In the Department of Botany the following 14 cases have been installed, labeled in full, and placed on exhibition: Of the American Forestry Series: Pride-of-China tree, Oregon Yew, Garry's Oak, Buckwheat tree; Hercules' club, Oregon Elder, Service tree, Southern Cherry; Oregon Crab-apple, Bitter Cherry, Sitka Willow, Wild Crab-apple; Myrtle Oak, Wild Plum; Devil-wood, Georgia Bark; Striped Maple, Mountain Laurel, Vine Maple, Yaupon. Of the Systematic Series: Two cases displaying the characteristic products and utilization of Seaweeds; one case illustrating the economic products of the Soapwort family; and one case devoted to the botany and economics of the Spikenard family. A number of cases have been reinstalled to accommodate plant reproductions or new and specially interesting specimens. In many instances installed cases have been rearranged to better display their contents. Through the interest and munificence of Mr. Stanley Field, the Section of Plant Reproduction was reëstablished, in connection with the Department of Botany. Five well-lighted connecting laboratories were constructed in the West Annex of the Museum building designed to accommodate a Biologist, a Glass-worker, an Artist, an Assembler, and a Caster in wax and plaster. The rooms were finished and equipped with apparatus in February. Dr. Dahlgren, the former Biologist in charge, accepted the Assistant Curatorship of Economic Botany in March, and the Museum succeeded in selecting and organizing the working staff on the lines previously employed in this unique and representative work. The training of the staff, each in his special craft, began about the middle of March and actual operations began the first of April. The end of the year finds the following reproductions completed and installed: The Pine Family: a specially preserved natural branch of Georgia Pine, accompanied by an enlarged male ament, a highly magnified anther, an enlarged female "cone" and magnified pistillate scale. The Pitcher-Plant Family: a complete, natural-size plant of Sarracenia *in situ* in bog-moss, a separate flower opened to show the arrangement of the reproductive organs, and two enlarged sections of the ovary. The Grass Family: a panicle and enlarged spikelet of Oats, accompanied by an enlarged flower at anthesis and a highly enlarged developing grain. The Cactus Family: a complete, natural-size plant of the Dune Cactus in flower, young bud and fruit, accompanied by a somewhat enlarged sectional flower and a transverse section of the ovary. The Spikenard Family: a complete, natural-size plant of Ginseng in full ripe fruit and retaining its characteristic root. The Spurge Family: the complete upper portion of a large Castor-bean plant in full leaf, flower and ripe fruit; associated with enlarged models of a male cluster and female flower in section and a transverse section of the ovary. The Waterlily Family: a strikingly natural portion of a "Lotus bed" comprising life-size leaves in all stages of expansion, developing flower-buds, fruits and fully expanded flowers. The Mahogany Family: a natural-size branch of the Mahogany tree in full leaf and ripe fruit. The Dog's-Bane Family: a complete natural-size top of an Oleander bush with three branches in full flower and one in ripening fruit; associated with this is an enlarged flower of the Dog's bane sectioned to reveal the peculiar arrangement of the essential organs, and a transverse section of the ovary. The Blue-Green Algae: a model, in glass, of *Nostoc* (highly magnified) and a similarly produced model of *Rivularia*. The Green Algae: a complete natural-size reproduction, in glass, of a species of *Caulerpa*. During the period of production of the above the following reproductions and models were in process and are now nearing completion: A natural-size plant of Poison Ivy, in full leaf and flower, and an autumnal branch in full ripe fruit and colorate leaf; a large portion of a Trumpet-creeper vine in full leaf, flower and fruit; the terminal portion of a Bittersweet vine in full autumnal foliage and ripe fruit and a small branch in flower; a large branch of Witch-hazel in autumnal foliage, ripe fruit and flower; a large branch of the Sassafras tree in full leaf and fruit; and a complete male plant of *Nepenthes* in leaf, pitcher and flower. Accessory reproductions of specialized fruits, with a leaf or two attached to the stems, are produced as opportunity offers. Of these the Cocoon Fruit (*Fevillea*), of the Melon family, has been finished and installed; and the peculiar fruits of the Sausage Tree and the Wax Candle tree are in process. All the reproductions and models are made from living plants only and are fabricated from such materials as are permanent and will best simulate the transparency, freshness and texture of each special organ. In order that the full character of this work may be comprehended in this connection a recapitulation of the work accomplished previous to Mr. Field's contribution for the maintenance of the Section, may not be out of place in this report. The other plant families now represented, aside from the above, are: The Orchid Family: a complete, natural-size Vanilla vine, in full leaf, flower and mature fruit, accompanied by a large Cattleya flower and enlarged essential organs; The Milkweed Family: a complete, natural-size plant of the common Milk-weed in full leaf, fruit and flower-heads, accompanied by an enlarged flower, stamen, and a leg of a fly carrying a pollen sac; The Gingko Family: a large, natural-size branch of the Maidenhair tree in full leaf and ripe fruit. The Horsechestnut Family: a large branch of the Buckeye in full leaf and fruit, accompanied by a smaller branch in leaf and flower, and a number of ripe fruits open to reveal their distinctive character; The Soapberry Family: a natural-size limb of the Akee tree in full leaf, flower and ripe fruit, plainly exemplifying the close relationship that exists between this family and that of the Horsechestnuts. This is accompanied by a portion of the flower cluster, enlarged, detailing a male and a female flower; The Pea and Bean Family: a branch of the Tamarind tree, in full leaf, flower and ripe fruit, and an enlarged, dissected flower of the common Pea; The Joint-Fir Family: a large portion of a Gnetum vine in full leaf, flower and fruit together with an enlarged "cone" and still greater enlargements of the male and the female flowers; The Snake-Root Family: the upper portion of a large Swan-flower vine, with its peculiar blossoms and buds, accompanied by a flower, in section, revealing the intricate structures developed to prevent self-fertilization; The Morning Glory Family: a complete Sweet Potato vine, including the root system, in full leaf and flower, an enlarged flower of the Morning Glory sectioned to reveal the essential organs, also a longitudinal and a transverse section of an ovary; The Bread Fruit Family: a natural-size branch of the Bread-fruit tree in full leaf and bearing a cluster of male and of female flowers together with a ripe fruit. This is accompanied by a half section of the ripe fruit, a large Jack Fruit with leaves, a quarter section of the fruit, and models of highly magnified male and female flowers; The Citrus Family: a natural-size branch of the Grape Fruit in full leaf and flower including a cluster of ripe fruits; an Orange flower, in section, revealing the essential organs; reproductions, with leaves, of the King Mandarin, Citron, Kumquat, Lemon, Sweet Lemon, Lime, Sweet Lime, Navel Orange, Pumelo, Tangerine, Finger Citron and sections of several fruits to show the character of the pulp; The Ebony Family: a large, natural-size branch of the Persimmon tree in full ripe fruit after the leaves have fallen; The Pigeon Plum Family: a natural-size branch of the Sapote in full leaf, flower and fruit, two enlarged flowers, three ripe Star-apples in transverse section; The Mangrove Family: a full case representing a Mangrove colony with the trees in full leaf, flower, fruit and aerial root, with a number of fruits floating and others taking root in the muddy shore; an enlarged flower sectioned and a series of fruits showing the development of the radicle; The Sorrel Family: a natural-size branch of the Bilimbi tree in full leaf, flower and fruit, a sectioned flower of the Sheep Sorrel, enlarged, and a cluster of Carambola fruits with leaves; The Magnolia Family: a large branch of the Great Magnolia in full leaf and floral cycle and with developing fruits; The Pawpaw Family: the upper portion of a Sour-sop tree in full leaf, flower and



PORTION OF A LOTUS BED
(*Nelumbo lutea*)

Reproduction of a small portion of a lotus bed at Grass Lake, Illinois, in representation of the natural habitat and

ripe fruit, an enlarged flower in section, a cluster of Ylang-ylang fruits with leaves, a cluster of Pawpaw's with leaves and a Pawpaw fruit in section, a ripe Custard-apple with leaves; The Smartweed Family: a large branch of the Sea Grape tree in full leaf, flower and fruit, with an enlarged section of the flowering rhachis with three fully developed flowers; The Lily Family: a complete natural-size plant of Aloes in full flower, associated with this is a model of the summit of a lily plant in flower and a sectioned ovary; The Pomegranate Family: a natural-size branch of a Pomegranate tree in full leaf and flower, an enlarged flower, in section, with two sections of the ovary, and a ripe pomegranate sectioned to show the peculiar arrangement of the seeds; The Papaw Family: a complete summit of a Papaw tree in full leaf, female flower and all stages of developing fruits, a complete male inflorescence, an enlarged male and female flower, in section, and a full-ripe fruit cut to reveal the disposition of the seeds; The Arum Family: a complete, natural-size Anthurium in full leaf, flower and fruit, growing from the crotch of a tree and showing the aerial root system; with this are two flower spathes of the Indian Turnip cut to show the bases of the male and female spadices, a complete ripe fruit cluster, an enlarged stamen and the section of an ovary; The Nutmeg Family: a branch of a Nutmeg tree in full leaf, flower and fruit, enlarged male and female flowers, in section, a sectioned ovary and a ripe fruit opened to reveal the mace and nutmeg within; The Madder Family: a large branch of a coffee tree in full leaf, flower and developing fruit, an enlarged flower, in section, two sections of a ripe fruit showing the position of the twin coffee "berries" and a full plant of Myrmecodium — the "Living Ant's-nest"; The Chocolate Family: the summit of a Chocolate tree in full flower and developing fruit, with a branch in full leaf, an enlarged flower and a ripe fruit opened to reveal the disposition of the "beans"; The Lignum-Vitae Family: a natural-size branch of Lignum-vitae in full leaf, flower and fruit, an enlarged flower, in section, two sections of the ovary and mature fruits of another species; The Clove Family: a natural-size branch of the Guava tree in full leaf, flower and mature fruit, with this an enlarged flower, in section, and a sectional ovary; The Mushrooms: the following species have been reproduced toward illustrating the edible and poisonous mushrooms: clusters of two *Tricholomas*, *Grifola*, *Peziza*, *Armillaria*, *Marasmius*, *Amanita*, *Russula*, *Coprinus*, and *Agaricus campestris*, also a large specimen of *Clavatia gigantea* and another broken open to reveal the texture of the interior; The Bacteria: a monographic series of reproductions, in glass, micro-detailing a number of well-known species of disease germs, ferments, etc., tribal types, reproduction, nucleation and methods of cultivation;

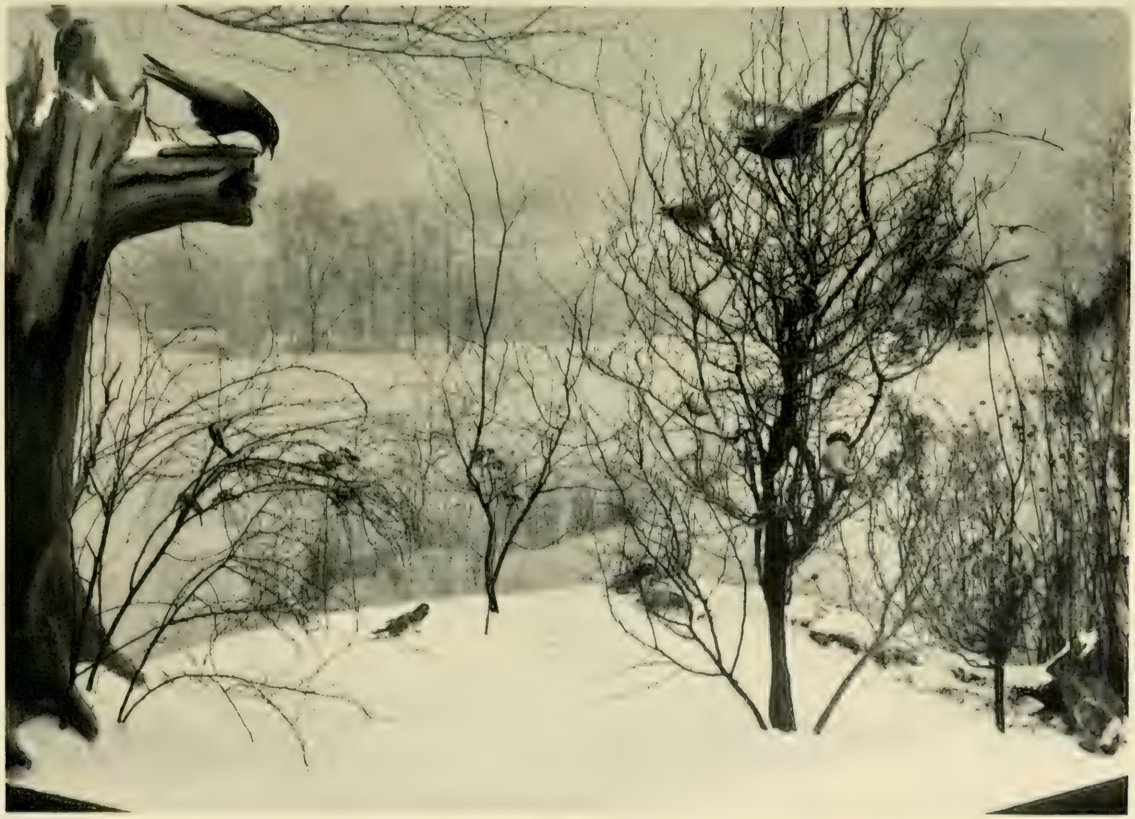
The Diatoms: a monograph reproducing nine typical species and illustrating the method of conjugation, colonization, and the production of resting spores; The Conjugatae: a monographic display reproducing ten unicellular and multicellular species also illustration of conjugation in the unicellular type and the formation and ejection of zoospores in the multicellular forms; The Liverworts: a natural-size colony of Marchantia, with enlarged male and female reproductive organs and a series of highly magnified reproductions illustrating both forms of generation; The Horsetails: natural-size reproductions of a whole sterile vegetative shoot, a complete male shoot and a magnified section of a sterile "cone," also a cluster of sporophores. A number of other pieces were produced and installed awaiting further reproductions in the families to which they pertain. They are: The Pepper Family: a reproduction of a bundle of fresh leaves of the Betel Pepper such as are sold in Malayan markets; The Arrow-Root Family: five natural-size flowers of Thalia so disposed as to reveal the peculiar development for fertilization; The Pineapple Family: a natural-size branch of a Calabash tree, in full leaf, acting as host for a colony of Tillandsias; The Ginger Family: reproduction of a full size, fresh, ripe fruit of the Cardamom as sold in Malayan markets as a vegetable; The Gamboge Family: a leafy tip of a branch of the Mangosteen bearing a full-ripe fruit, three sections of the fruit showing the disposition of the pulp and seeds; The Fig Family: the tip of a leafing Osage Orange branch bearing two mature fruits; The Caper Family: an enlarged Spider-flower, a section of the ovary and a fully matured fruit; The Connarad Family: a leafy branch of Connarus bearing a cluster of mature fruits, two fruits opened to reveal the peculiar seed and its aril; The Birch Family: an enlarged portion of a male and a female catkin displaying the essential organs and a still greater enlargement of a stamen; The Screw-Pine Family: reproduction of a mature Pandanus fruit.

A number of objects and collections in the Department of Geology have been installed in various halls, but as heretofore, owing to lack of space, this has been accomplished in most cases only by removal of other series which had previously been on exhibition. By some readjustments in Skiff Hall, a floor case containing about fifty of the largest specimens of copper from Lake Superior presented by Nathan F. and Alfred F. Leopold was installed. Before installation of these specimens they were thoroughly cleaned by immersion in sodium cyanide and then carefully coated with shellac by means of an air brush so that they could not again tarnish. At the same time the opportunity was improved to give a similar treatment to a number of other specimens of native copper and silver. The valuable collection of Lake

Superior minerals which for a number of years had been loaned to the Museum by the late Frank McM. Stanton was, owing to the decease of Mr. Stanton, returned to Mrs. Stanton at her request. In the space thus vacated, the collection of Chuquicamata, Chile, copper ores, received during the year, and a series of Bolivia copper ores were installed. By removal of less important specimens there were also installed in this hall the series of gold and iron ores and accompanying rocks from Brazil presented by Mr. George Chalmers, and a series of specimens representing the ores of the Chloride, Arizona, district. In order to provide greater security, the more valuable part of the platinum collections was transferred from this hall to Higinbotham Hall. This has relieved the previously overcrowded condition of the case which contained these specimens, and permitted better display of those of less intrinsic value. In order to provide space for the exhibition of two models which had recently been constructed, part of the synoptic fossil collection was removed from Hall 35 and the models installed in the space thus left. The models were constructed by the Assistant Curator. One illustrates the processes of extinction of a glacial lake, the other represents the relation of soil to rock in a glaciated region. The model illustrating the extinction of a glacial lake was constructed to explain the operation of those agents which are causing the gradual obliteration of numerous small lakes of glacial origin which are scattered through the moraine belt of the country and are especially numerous in parts of Illinois, Michigan and Wisconsin. Incidentally the nature and origin of the lake marl deposits are shown, as well as the mode of formation of the peat beds of the Upper Mississippi Valley. These beds are somewhat different in origin from those commonly described in text books. As it was found that no single lake was adapted to show these features properly in a model of suitable size, the model was made as a composite of a number of small Illinois and Wisconsin lakes with which the Curators were familiar. The model is made of Portland cement reinforced with expanded metal. It is five feet long, nineteen inches wide and two feet high. It was designed for installation on the floor of a deep wall case. The scale is 30 feet to the inch, which is small enough so that a considerable area can be represented and yet large enough to show vegetation in some detail. On the upper surface, the model shows half of a disappearing lake lying in a gravel and rock basin. The original shores of the lake appear where the hills meet the swamp which forms the present shore. From this original shore a swamp extends for a considerable distance towards the center. The two ordinary characters of shore marshes are shown in an open marsh of rushes and sedges on one side, and on the other side a cedar and tamarack swamp. Beyond these there extends over the lake a fringe of floating bog, composed of a mat of rushes and sedges floating on the lake surface and attached to the shore. Beyond the floating bog, water is shown and on its surface appear representations of aquatic vegetation, such as lilies, bulrushes, etc., which grow in orderly, but sometimes broken sequence from the shore outward. On the bottom of the lake appear masses of water weeds also in zones, each kind of weed contributing its detritus to the masses of calcareous and organic material which slowly fill the lake. The front of the model shows a section of the lake and its adjoining ground. The lake bottom has also been modeled and may be seen through the representation of the lake water. This section shows at the sides and bottom the original gravel and rock basin of the lake. The peat and muck formed from the remains of aquatic vegetation extend towards the center from the sides. The floating bog also appears in section, and the underlying peat formed from the vegetable remains dropped from the rush mat is represented. Masses of bladderwort and similar water plants and the peat derived from them are shown in their proper position, as well as the lime-secreting algae and charas growing over the grayish-white marl which they are supposed to have formed on the lake bottom. The model illustrating the relation of soil and rock in glaciated regions is intended to show that in a glacial region the contour of the surface of the soil has no relation to the form of the rock surface below. The model is made of Portland cement laid on expanded metal. It is three feet long, one foot wide, and thirty-two inches high. The scale is 30 feet to the inch. It represents a region such as exists in the agricultural districts southwest of Chicago. The upper surface of the model represents a slightly rolling country with cultivated fields, pastures, farm buildings and a road. The front of the model shows a section through the soil and the rock below. The surface soil is represented lying on a mass of till, which in turn rests upon horizontally bedded limestone. The upper surface of the limestone is represented as having been carved in pre-glacial times to a very rugged topography, but the peaks and valleys of this rock topography are seen to have no bearing whatever on the contour of the gently rolling surface above. In order to bring the peat collections opposite the model illustrating the mode of formation of peat, the table cases in Hall 35 were rearranged, and in the case illustrating the occurrence of diamond, a new series of minerals and rocks associated with the occurrence of the South African diamonds was installed. In making this installation there was placed in the center of the collection a large label with a cut representing a cross-section of the Kimberley deposit. From appropriate places on this label white silk threads were extended to specimens of the corresponding rocks. Beyond these, specimens of the minerals which are associated with the diamonds of the deposit were placed in a series of trays. In addition, the exhibit as at present displayed includes large samples of the Kimberley "blue ground" and a specimen of diamond in the matrix. The installation of the meteorite collection has been somewhat rearranged during the year and a number of improvements made. The pyramids of three of the cases containing stone meteorites were remodeled, in order to better display the specimens. For this purpose the specimens were first removed and then reinstalled. A border left by etching on a large number of specimens of the iron meteorites as they were received was found to be misleading to visitors, as it appeared to represent a natural feature. Accordingly fifty-two of these specimens have been repolished and reëtched. Exhibition labels have been provided for the entire meteorite collection, and about six hundred were installed during the year. Adjacent to the meteorite collection, a series of terrestrial irons has been put on exhibition, the series including a number of specimens of the Santa Catharina and Greenland irons and awaruite from several localities. Two terrestrial globes prepared by the Assistant Curator to show special features, were added to the exhibition series of maps. One of these globes is colored to show the geological age of the different portions of the earth's surface about which the data are known, and upon the other are indicated the areas of the earth which are subject to earthquakes. The data for the geological globe were based largely on the well-known map by Jules Marcou with some corrections and additions. The colors chosen to represent the different periods were selected to give a pleasing effect and provide contrast without harshness. On the earthquake globe the land and water are shown in light colors and the earthquake regions are represented in a strongly contrasting dark shade. The zonal distribution of regions subject to earthquakes is thus well brought out. As the large skull of Triceratops in Hall 36 was found to be undergoing injury on account of vibration caused by the passing of heavy objects, it was removed to a less exposed location in Hall 33. Two floor cases of Jurassic fossils were moved from Hall 33 to Hall 36 in order to occupy the vacated space and some other adjustments of cases in this hall were made so as to give better lighting. The skeleton of the fossil wolf from the Los Angeles asphalt beds, which was mounted during the year, was installed in a case in Hall 36 with other specimens from these beds. The skeleton as mounted represents the animal stepping from an apparently firm mixture of asphalt and soil into a soft asphalt from which it was unable to escape. In a floor case in Hall 59 a skeleton of a saber-tooth tiger from the same deposit was placed on exhibition in a disarticulated form, so that its osteological characters may be readily studied. A full series of labels was provided with which white silk threads extending from each element to its label indicate definitely the several parts. The contents of several cases in Hall 59, containing chiefly vertebrate Miocene fossils, were rearranged, largely in order to admit new specimens which had been worked out in the laboratory. The most important of these was a mount of the posterior half of a skeleton of the rare Oligocene aquatic rhinoceros, Metamynodon. This was mounted in relief on a slab three and one-half by five feet in size, the texture and color of the slab being made to imitate as far as possible the matrix from which the bones were taken. Each bone was also mounted so as to be easily removed from the slab whenever this may be desired for purposes of study, or otherwise. Other newly prepared specimens installed in these cases were, skulls and lower jaws of the rare Oligocene ungulate, Protoceras celer, and the same of the Oligocene suilline, Perchoerus. The large model of jaws of the fossil shark exhibited in Hall 60, was found to be undergoing injury on account of too much handling by visitors. It was accordingly removed to an alcove and a railing placed in front of it. The position of others of the large mounts in this hall was also changed in order to give wider passageways and better protection. In this connection the opportunity was improved to repair injuries which had been caused to many of the large mounts in this or adjoining halls by too great inquisitiveness of visitors. Mounts so repaired included those of the Glyptodon, Hadrosaurus, Colossochelys, Uintatherium, Carcharodon and Mastodon. The large case of Miocene fossils formerly in Hall 60 was moved to Hall 61 and the skull and partial skeleton of Teleoceras received during the year as well as some smaller specimens were installed in wall cases in the same hall. Work in the paleontological laboratory was hindered by the absence of the preparator during a large part of the year, but nevertheless a number of valuable specimens were either worked out or mounted, or both. Among the specimens thus prepared in the laboratory during the year were the Metamynodon, Protoceras and Perchoerus mounts already mentioned, a skull and jaws of Parahippus, portions of a skeleton of Megacerops, a number of canine teeth of the saber-tooth tiger and bones of the Mammoth. Some specimens received in exchange also were given treatment necessary to insure their better preservation.

In reclassifying the serial or synoptic collection of mammals in the Department of Zoology, many duplicates were eliminated and various other specimens, which it is now evident will not meet the standards or needs of the installations planned for the new Museum building, have been transferred to the reference collection or disposed of otherwise. Among these are a considerable number of mounted mammals prepared a good many years ago, before the greatly improved methods of taxidermy now in use had been perfected. In many instances these specimens have been replaced by others of the same species of better quality. Following this a reinstallation was made of part of the synoptic collection including especially the smaller ungulates as the wild sheep, goats, and antelopes. These have been placed in twelve new cases of special design adopted as a standard to be followed for the remainder of the synoptic collection of mammals. The new cases have the general dimensions and appearance of the cases used throughout the Department of Zoology but are modified for the especial display of large and medium-size mammals by having slightly higher bases and by the use of single plates of glass in the sides without interrupting mouldings. The length of these cases is approximately 12 feet, the width 4 feet, and the height 8 feet. For smaller mammals a case of the same length and width but much reduced height was necessary and two such cases were satisfactorily installed; one with pigmy deer and antelopes and the other with wolves and foxes. Although work has progressed on several groups of mammals, none have been installed during the year. The most important mammal group under preparation is that of the American Bison, made possible through the generosity of Mr. Arthur B. Jones. Marked progress has been made with this group. Late in the winter of 1916 arrangements were made to obtain especially fine selected specimens from the living bison in the well known Corbin herd maintained by the Blue Mountain Forest Association of New Hampshire. At the proper time, therefore, the Museum Taxidermist selected the animals and prepared the skins and necessary parts of their skeletons together with measurements and the data required in this connection. These exceptionally fine skins have been prepared by the skin dresser and are now ready for use when needed. Meanwhile, a background was painted for this group by Mr. C. A. Corwin, representing a scene near the last stronghold of the bison in eastern Montana. This background is of semi-elliptical design and of very large size to conform to a generously proportioned case which, as planned, will be 28 feet wide, 14 feet deep, and 15 feet high. After preliminary models in wax had been made, full size manikins for the seven bison to be included in the group were prepared. During the year the work on the artificial vegetation accessory to the jaguar and capybara group was finally completed and this group is therefore ready for installation. Under the Stanley Field Ornithology Fund, three additional habitat groups of birds have been completed and installed for exhibition, and a fourth is well advanced. The completed groups are as follows: Group 1 — Winter birds in northern Illinois, showing a number of winter species, including Hairy

Woodpecker, White-breasted Nuthatch, Chickadee, Snow Bunting, Blue Jay, some excited Crows have discovered a Screech Owl in a hollow tree, and a Northern Shrike is shown surrounded by several small birds (Redpolls, Siskins, etc.), which he has killed and placed on thorns for future consumption. Group 2 — A winter scene on shore of Lake Michigan, showing ice and open water. The group includes Herring Gulls, Surf Scoter, Long-tailed Duck or Old Squaw, and Red-breasted Mergansers; all familiar birds in this locality at that season. Group 3 — Bird Life at Fox Lake, Illinois. A summer scene, illustrating the nesting habits of a number of the smaller marsh birds and includes the Red-winged Blackbird, Yellow-headed Blackbird, Bank Swallow, Black Tern, Gallinule, Virginia Rail, Sora Rail, Coot, and Least Bittern. Many nests, eggs and young birds are shown. Thirty specimens of local fishes were mounted. There was also prepared, from a skin in liquid, an excellent mount of the monkey-fish, a strange eel-like creature inhabiting the California reefs. The large mounted sword-fish, which was literally falling to pieces, was remounted and put into such shape as to make a suitable display. Some time was devoted to the formulation of the best possible scheme for the display of fishes, amphibians, and reptiles in the new Museum building, in order that the exhibition aspect of the work in the Division might be most efficiently directed to that end. The Division of Entomology primarily directed its efforts toward the preparation of insects and insect groups for exhibition. A life-history exhibit of the mulberry silk-worm, containing fifty specimens, illustrating the various stages of the silk-worm, including the eggs, larvae, cocoon, and moths, was mounted on a wax mulberry branch. This life-history together with recently acquired photographs of the silk-worm industry in Japan, and a selection of the enlarged models of the same insect, are to be installed in one of the new A-cases. The Assistant Curator assembled and determined all of the alcoholic representatives of the scorpion, centipede and tarantula contained in the Museum collection. This material was prepared for exhibition and there are now ready for installation fifty-five mounts of these insects. Some of the material collected during the year by this Division has been prepared for exhibition and considerable progress has been made in making the casts of leaves, larvae, etc., for the tomato worm case. Satisfactory progress with the reinstallation of the shell collection was made only during the first five months of the year, during which time one case was filled and completed, while all of the shells still to be installed were remounted on new tablets, thus completing at least one important phase of this work. A portion of the systematic exhibition collection in osteology was reinstalled in cases released from the Division



Bird-Life in Winter in Illinois

of Mammalogy. 207 skulls were prepared and 4 skeletons were mounted for the systematic collection. 9 skeletons were prepared for the unmounted collection of comparative osteology and 4 for the Division of Mammalogy. 2 study specimens of skeletons of birds, a Saw-whet Owl and Purple Martin, and two skulls of young Rabbits, were also prepared.

The N. W. Harris Public School Extension of Field Museum of Natural History. — In this Department of the Museum there are now available 534 cases for circulation among the public schools, while several groups and a quantity of material are prepared and arranged ready for immediate installation in cases. In order to provide storage facilities for additional empty cases and for those already installed and for the purpose of improving former methods of delivering cases to and receiving them from the car, it was necessary to rearrange and enlarge the plan that was originally adopted for these purposes. The room devoted to storage has been divided into four parts, each part being furnished with racks and hooks for hanging the cases. Upon one group of racks are hung cases containing botanical subjects; upon another group of racks are hung cases containing geological material, and so on. At the ends of the aisles of racks numbers are displayed, designating what numbered cases are to be found in the aisles when selecting them for delivery to the schools and where they are to be replaced when returned from the schools. This arrangement will permit the storage of approximately 800 cases, and when the 250 cases, which have been ordered, have been received, the limit of the storage capacity of this room will have been reached. The ends of each case and the two general labels which accompany it are lettered and numbered alike. This idea was adopted as a simpler, quicker and a more dependable one for assigning, recording and identifying cases, than by means of case titles or subjects, which, of course, appear on the labels. By having greatly needed repairs and improvements made upon the delivery car during the last school vacation period, a stricter adherence of the daily schedule for the delivery and collection of cases is found possible than the condition of the car last year permitted. This Department has received many letters from principals and teachers similar to the one from the Principal of the J. A. Sexton School, which is herewith submitted:

"I wish to express the thanks and appreciation of the pupils and teachers of this school for the loan of the beautiful natural history cases which are sent from the Museum. In a congested district like this they are especially helpful, and they are a never failing source of pleasure and instruction for us all."

As an indication of the desire on the part of the Museum to increase the usefulness of its Extension System, the Curator frequently has requested principals and teachers to express their views and opinions as to ways by which the desire would be accomplished. Cases are being loaned to 176 elementary schools and to their branches having a daily enrollment of a hundred or more students. It has been found advisable to increase the length of time allowed for cases to remain at one time in a school from two to three weeks. This extension in the duration of the loan period, not only gives the pupils an additional week for observation and study of the cases, but enables the Department to arrange and maintain a reliable schedule for the delivery and collection of cases. To accomplish this it was necessary to divide the schools in four sections and to form groups of schools in each section. At the beginning of the scholastic year the circulation of cases starts with the delivery of three cases from the Museum to each of the first group of schools located in what is designated as the first section. After each school in each group of the first section has been loaned three cases, deliveries are made in a similar way to schools of the third section. Three school weeks are required for the delivery of cases to the first school of the first group located in the first section to the last school in the last group of the third section. When these deliveries have been made, the cases are collected from these sections in the order in which they were delivered and distributed to groups of schools located in the second and fourth sections respectively. This system is maintained throughout the school period. By means of receipt cards the circulation record of each case is kept. Each card besides bearing the same letter and number as shown on the case and the labels which accompany it, has spaces for recording the name of the school to which the case has been assigned, the signature of the principal or teacher receiving it, the date it was received, the number of pupils studying it and the length of time it was retained.

PHOTOGRAPHY AND ILLUSTRATION. — The following is a tabulation of the work performed in this Section during the year:

	Number of Negatives made	Number of Prints made	Number of Lantern Slides made	Number of Enlargements made	Number of Negatives Developed for Expedition	Number of 6½x8½ Positives made Used in making large Negatives
General	9	67	..	..	..	..
Anthropology	118	476	..	..	..	..
Botany	39	1,193	22	..	32	..
Geology	46	587	..	7	177	7
Zoölogy	21	57	..	..	2	..
Harris Extension	8	41	..	1	8	1
Distribution	...	76	..	..	..	..
Gift	...	45	3	..	..	..
Sale	...	325	25	..	..	..
Totals	241	2,867	50	8	219	8

Total number of Catalogue entries during 1917	3,393
Total number of Catalogue entries to December 31, 1917	117,848
Total number of Record Books	20

PRINTING. — The number of labels and other impressions made by the Section of Printing is as follows during the year:

	Exhibition Labels.	Other Impressions.
Anthropology	6,430	2,575
Botany	723	16,780
Geology	1,251	700
Zoology	2,051	4,950
General	....	64,764
Library	....	7,200
Harris Extension	344	.....

Herewith are also submitted financial statements, list of accessions, names of members, etc., etc.

FREDERICK J. V. SKIFF, Director.

FINANCIAL STATEMENT.

RECEIPTS AND DISBURSEMENTS.

January 1, 1917, to December 31, 1917.

Receipts

Cash in Treasurer's hands December 31, 1916:		
General Fund	$2,188.49	
New Exhibition Cases Fund	791.60	
Life Memberships Fund	1,514.60	
Sundry Funds	1,179.20	$5,673.89
Petty Cash on hand December 31, 1916		730.98
Dues of Life Members		3,000.00
Dues of Annual Members		840.00
Admissions and Check Rooms		5,173.50
Sale of Guides — Profit		156.00
South Park Commissioners		15,000.00
Interest on Investments and Bank Balances		24,498.01
Field Endowment Income		131,500.00
Field Endowment Sinking Fund		8,117.27
Field Endowment Sinking Fund Income		552.37
Life Memberships Fund Income		1,074.81
New Exhibition Cases Fund Investments retired		2,895.00
New Exhibition Cases Fund Income		94.52
New Building Moving and Furnishing Fund Income		1,444.90
Stanley Field Plant Reproduction Fund		7,095.00
Stanley Field Ornithology Fund		700.00
R. F. Cummings Philippine Fund		97.92
Arthur B. Jones Buffalo Group Fund		1,776.02
H. W. Jackson Library Fund Income		75.10
W. J. Chalmers Crystal Collection Fund		500.00
Donations — Special		370.65
Picture Postal Cards — Sales	$695.28	
Picture Postal Cards — Sundry Receipts	87.48	782.76
Sundry Receipts		177.27
		$214,277.00

DISBURSEMENTS

Salaries		$75,814.30
Guard Service		11,557.49
Janitor Service		7,106.39
Fire Protection		3,114.56
Heat and Light		17,249.28
Repairs and Alterations:		
Wages — Carpenters, Painters and Roofers	$8,558.01	
Materials used — lumber, paint, oils, glass, etc.	1,078.54	9,636.55
Furniture and Fixtures:		
Cases and Bases	$4,863.35	
Office Furniture and Herbarium Cases	764.50	5,627.85
The Library:		
Books and Periodicals	$799.80	
Binding	523.84	
Sundries	261.32	1,584.96
Collections Purchased		856.93
Installation Expenses		2,217.22
Publications		2,237.82
Picture Postal Cards — Renewals		561.02
Sections of Photography and Printing — Supplies		756.09
General Expense Account:		
Freight, Expressage and Teaming	$1,191.03	
Stationery, Postage and Telephone	970.58	
Liability Insurance	659.12	
Sundries	970.21	3,790.94
Stanley Field Plant Reproduction Fund		7,511.72
Arthur B. Jones Buffalo Group Fund		2,158.80
Stanley Field Ornithology Fund		600.00
W. J. Chalmers Crystal Fund		326.35
New Building Moving and Furnishing Fund — Investments		1,400.00
Life Memberships Fund — Investments		7,300.00
Endowment Sinking Fund — Investments		24,810.64
General Fund — Suspense — Investments		23,885.00
Stanley Field Ornithology Fund — Investments		100.00
H. W. Jackson Library Fund — Investments		85.51
In Treasurer's hands December 31, 1917:		
General Fund	$2,417.05	
Picture Post Card Fund	275.25	
Endowment Sinking Fund	243.83	2,936.13
Guards' Uniform Account		311.50
Petty Cash on hand, December 31, 1917		739.95
		$214,277.00

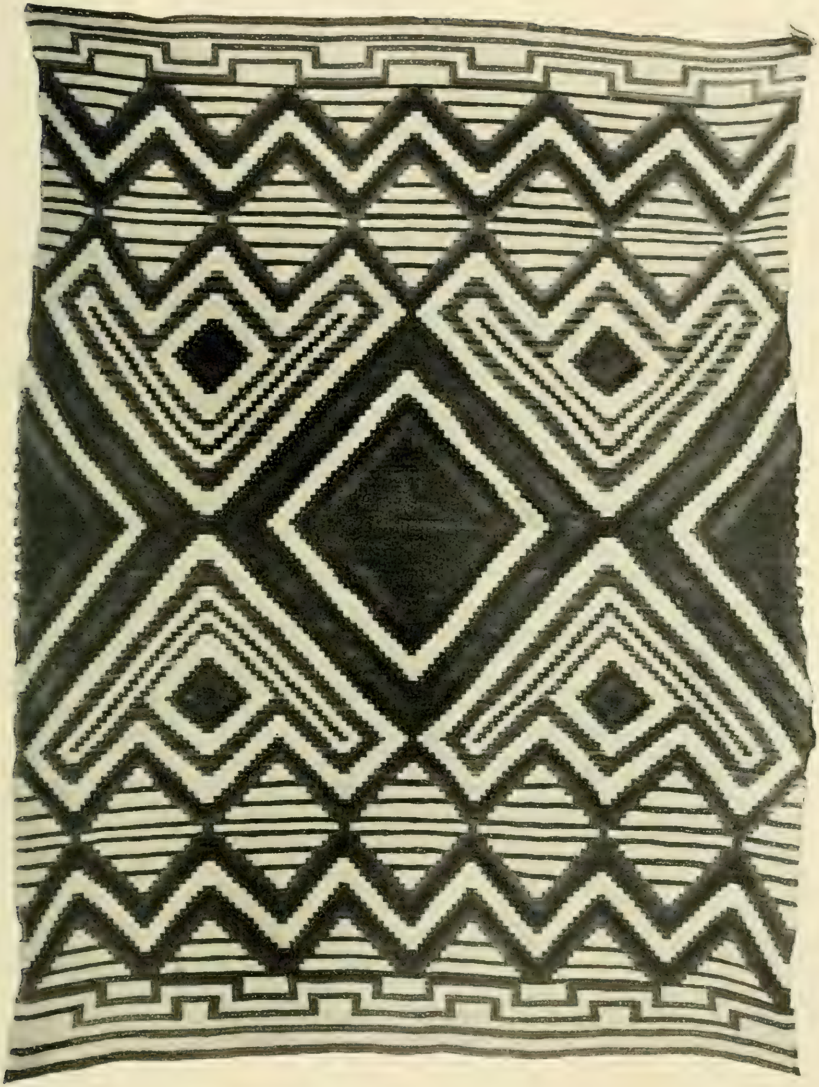
ATTENDANCE AND RECEIPTS FROM JANUARY 1, 1917 TO DECEMBER 31, 1917.

Attendance

Paid Attendance:		
Adults	18,821	
Children	1,134	19,955
Free Admission on Pay Days:		
School Children	7,927	
Students	3,703	
Teachers	618	
Members	54	
Officers' Families	54	
Special	198	12,554
Admissions on Free Days:		
Saturdays	35,697	
Sundays	122,991	158,688
Total Attendance		191,197
Highest Attendance on any one day (July 8, 1917)		5,845
Highest Paid Attendance on any one day (September 3, 1917)		710
Average Daily Admissions (363 days)		526
Average Paid Attendance (259 days)		77

Receipts

Guides Sold — 624 at 25 cents each	$156.00
Articles checked — 11,133 at 5 cents each	556.65
Admissions	4,818.65
	$5,531.30



OLD NAVAHO BLANKET OF BAYETA WITH GEOMETRIC DESIGNS IN WHITE, RED AND BLUE
Gift of Homer E. Sargent

ACCESSIONS.

DEPARTMENT OF ANTHROPOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

ALLIS, CHARLES, Milwaukee, Wisconsin.
  3 sword-guards — Japan.

AYER, EDWARD E., Chicago.
  Eskimo steatite cooking vessel and lamp — Alaska.
  Metate with muller — San Juan Capistrano, California.

BROSS, MRS. MASON, Chicago.
  5 pieces of pottery — Southwest and Mexico.

COOPER, A. T. and WRIGHT, JOHN W., Fort Bayard, New Mexico.
  325 prehistoric stone implements and pottery — Chihuahua, Mexico.

DRUMMOND, DR. I. W., New York City.
  1 ancient jade chisel — China.

EMMONS, LIEUT. G. T., Princeton, New Jersey.
  2 Shaman's head-dresses of bear claws, Tsimshian — Upper Nass River, B. C. (exchange).

FIELD MUSEUM OF NATURAL HISTORY.
  Purchases:
    Prehistoric flint arrowheads — Edgewater, Illinois.
    General collection from Eskimo, Alaska, about 390 specimens — Nome, Alaska.
  6 ancient ceremonial ivory tablets — Peking, China.

FRIESSER, JULIUS, Chicago.
  2 flint projectile points — Holland, Michigan.

GEOLOGICAL SURVEY, DEPARTMENT OF ANTHROPOLOGY, Ottawa, Canada.
  1 birchbark canoe — Montagnais, St. Lawrence River, Canada (exchange).

HARVEY, CHARLES A., Chicago.
  1 burned clay pot, 2 skeletons — Marblehead, Illinois.

HOLBROOK, MISS FLORENCE, Chicago.
  1 pair embroidered mittens — Upernivik, Greenland.

ITO, TOKUMATSU, Chicago.
  Album containing 92 old Japanese charms printed on paper, accompanied by a transliteration and translation of the legends — Tokyo, Japan.

MASON, J. A., Chicago.
  2 stone celts, 5 clay figures, 5 groups of potsherds — Tampico, City of Mexico, Campeche.

PIER, GARRETT C., Greenwich, Connecticut.
  19 ancient beads of jasper, agate and rock-crystal, 1 necklace of lacquered clay beads, 6 ancient gilded bronze rings — Japan.

RAUCHFUSS, CHARLES F., River Forest, Illinois.
2 grooved axes, 3 fine chipped spades, 1 chipped flint disc, 1 rude blade, chipped, 2 fragments pottery, and 235 chipped implements comprising knives and projectile points, scrapers, perforators and rejects, chiefly from Pope County, Illinois.

SARGENT, HOMER E., Chicago.
35 specimens Indian basketry — British Columbia; 39 Navaho, Hopi, Chimayo, and Mexican blankets, 41 pieces of Navaho, Hopi, Pueblo, and Acoma costumes; 1 moose-skin gun-case, 1 caribou hunting shirt, 2 game bags, Tahltan, 2 pairs moccasins — Yukon Territory.

WEAVER, D. W., Culver, Indiana.
1 arrowhead — Culver, Indiana.

DEPARTMENT OF BOTANY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AMES BOTANICAL LABORATORY, North Easton, Massachusetts.
30 herbarium specimens — Philippine Islands (exchange); 54 herbarium specimens — various localities (exchange).

BUREAU OF SCIENCE, Manila, P. I.
3 herbarium specimens — Prov. Ilocos, P. I.

CALIFORNIA ACADEMY OF SCIENCES, San Francisco, California.
158 herbarium specimens — various localities (exchange).

CLAYBERG, HAROLD D., Urbana, Illinois.
1 herbarium specimen — Michigan.

CLOKEY, IRA W., Denver, Colorado.
71 herbarium specimens — Colorado (exchange).

CROSBY, MISS GRACE, Montclair, New Jersey.
1 herbarium specimen — New Jersey.

DEAM, CHARLES C., Bluffton, Indiana.
10 herbarium specimens — 17 herbarium specimens — Indiana and Illinois.

DEPARTMENT OF AGRICULTURE, Washington, D. C.
6 specimens seeds — various localities.

EVANS, PROF. A. W., New Haven, Connecticut.
20 herbarium specimens — Mexico.

FIELD MUSEUM OF NATIONAL HISTORY.
Collated by C. F. Millspaugh:
22 herbarium specimens — Yucatan; 12 herbarium specimens — various localities; 4 photographic portraits of plants — Bahamas; 102 illustrations of species; 4 herbarium specimens, 1 illustration — various localities.
Collected by B. E. Dahlgren:
Living plants of *Nelumbium lutea* and 1 herbarium specimen — Grass Lake, Illinois.
Collected by O. E. Lansing, Jr.:
205 herbarium specimens — Jo Daviess County, Illinois.
Collected by C. F. Millspaugh and O. E. Lansing, Jr.:
52 herbarium specimens — Illinois; 4 herbarium specimens — Indiana.
Transfer from Department of Anthropology:
1 alga and shell necklace — Loyalty Islands.

Transfer from Department of Zoology:
20 specimens of lower algae and chara — Guatemala — Mexico.
Purchases:
982 herbarium specimens — Illinois and Wisconsin.
28 herbarium specimens — Maryland.
385 herbarium specimens — Alaska.
919 herbarium specimens — China.
530 herbarium specimens — Illinois.
452 herbarium specimens — California and Oregon.
Stanley Field Plant Reproduction Laboratory:
Enlarged flowers of oats, whole plant of ginseng.
Reproductions in glass and wax of — pitcher plant (whole plant), the sand-dune cactus (whole plant), the mahogany tree (branch and fruits), the antidote coccoon (fruits), the pitcher plant (flowers), castor bean (flowers), the pine (flowers).
Reproductions and models of: Castor bean, plant, oleander, branch, dogsbane, flower, cactus, flower, lotus, root system.

FLORA, E. E., Chicago.
Specimen of bog oak — England.

FURNESS, D. R., Evanston, Illinois.
91 herbarium specimens — Mexico.

GAUMER, GEORGE F., Izamal, Yucatan.
760 herbarium specimens — Yucatan.

GRAY HERBARIUM, Cambridge, Massachusetts.
131 herbarium specimens — New Mexico and Texas (exchange).
292 herbarium specimens — Newfoundland (exchange).
694 herbarium specimens — various localities (exchange).

GRONEMANN, C. F., Chicago.
51 herbarium specimens — Elgin, Illinois.
75 herbarium specimens — Illinois.

HALL, ELIHU, THE FAMILY OF, Athens, Illinois.
468 specimens catalogued and installed of the private herbarium of Elihu Hall, accession still unfinished — various localities.

HARTMAN, WILLIAM A., Chicago.
1 fungus — Chicago.

HIGGINS, JOHN, Chicago.
6 specimens hybrid Solomon's seal — Garden, Lincoln Park, Chicago.

KING, MISS ANNA, Highland Park, Illinois.
181 herbarium specimens — South Dartmouth, Massachusetts.

LANSING, O. E., Jr., Chicago.
93 herbarium specimens — Indiana and Illinois.

McDONALD, F. E., Peoria, Illinois.
121 herbarium specimens — Illinois and Iowa.

MILLSPAUGH, C. F., Chicago.
13 herbarium specimens — Wisconsin.

MISSOURI BOTANICAL GARDEN, St. Louis, Missouri.
664 herbarium specimens — various localities (exchange).

MITCHELL, A. J., Biloxi, Mississippi.
1 herbarium specimen — Biloxi, Mississippi.
1 herbarium specimen — Louisiana.

MURDOCH, MRS. ALICE L., Boston, Massachusetts.
3322 specimens — Private herbarium of John Murdoch, Jr. — various localities.
MURRILL, PROF. W. W., New York City.
47 plates of fungi.
NEWCOMBE, DR. C. F., Alberta, British Columbia.
1 photograph type plant — Queen Charlotte Islands.
NEW YORK BOTANICAL GARDEN, New York City.
142 herbarium specimens — Jamaica (exchange).
1 photograph of type species — Cuba (exchange).
6 photographs of plants — Cuba (exchange).
O'BRIEN, WILLIAM, Chicago.
1 fungus — Chicago.
RIDGEWAY, DR. ROBERT, Olney, Illinois.
169 herbarium specimens — Illinois.
SAFFORD, WILLIAM E., Washington, D. C.
17 photographs of type species — various localities.
2 photographs of type sheets — Field Museum herbarium.
SARGENT, PROF. C. S., Jamaica Plain, Massachusetts.
1 herbarium specimen — Waukegan, Illinois.
SHERFF, EARL E., Chicago.
1 herbarium specimen — Dutch Guiana.
1 herbarium specimen — Berkeley, California.
TOLMAN, L. M. Chicago.
1 wild nutmeg — South America.
U. S. NATIONAL HERBARIUM, Washington, D. C.
1477 herbarium specimens — various localities (exchange).
U. S. NATIONAL MUSEUM, Washington, D. C.
248 herbarium specimens — various localities (exchange).
UNIVERSITY OF ILLINOIS, Urbana, Illinois.
1769 herbarium specimens — various localities (exchange).
WILSON & COMPANY, Chicago.
Fruits of the Mexican nutmeg — Mexico.

DEPARTMENT OF GEOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED)

ALLARD, JOEL T., Center Lovell, Maine.
1 specimen weathered basalt — Lovell, Maine.
AMHERST COLLEGE, Amherst, Massachusetts.
Partial skeleton of Stenomylus and bones of Leontinia — Nebraska and Patagonia (exchange).
BROWN, W. T. WATKIN, Kogara, Sydney, New South Wales.
22 specimens minerals — Australia (exchange).
CHALMERS, GEORGE, Morro Velho, Minas, Brazil.
34 specimens gold ores and associated rocks — Morro Velho, Minas, Brazil.
5 specimens gold and iron ores — Minas Geraes, Brazil.
CHALMERS, WILLIAM J., Chicago.
1 specimen copper ore — Globe, Arizona.
55 specimens crystals — various localities.

CHILE EXPLORATION COMPANY, Chuquicamata, Chile.
108 specimens copper ores and minerals — Chuquicamata, Chile.

DEAN, R. S., Chicago.
11 specimens pyrite crystals — Rolla, Missouri (exchange).
3 specimens chert nodules, 1 specimen chert nodules, 1 specimen chert — Rolla, Missouri.

DE BEERS CONSOLIDATED MINES, Ltd., Kimberley, South Africa.
Series of rocks and minerals accompanying diamonds — Kimberley, South Africa.

DOHMEN, U. A., Chicago.
2 specimens invertebrate fossils — Yorkville, Illinois.

FIELD MUSEUM OF NATURAL HISTORY.
Collected by O. C. Farrington:
432 specimens Colby meteorite — Colby, Wisconsin.
24 specimens wind-carved boulders, 4 specimens moraine boulders, 1 specimen water-worn surface, 4 specimens feldspar, 2 specimens mica schist — Maine and New Hampshire.
Collected by J. F. Ferry:
1 specimen arborescent calcite — Aruba, Dutch West Indies.
Collected by H. W. Nichols:
2 specimens peat — Antioch, Illinois.
4 specimens limestone, 1 specimen cave earth — Natural Bridge, Virginia.
Purchases:
43 specimens clay concretions — Nome, Alaska.
11 specimens hewettite and metahewettite — San Miguel Co., Colorado.
7 specimens Colby meteorite — Colby, Wisconsin.
7 specimens minerals — various localities.
1 meteorite — Kofa, Arizona.

FRIESSER, J., Chicago.
2 mammal skulls, 1 specimen "coal brass."

GREENE, NEWTON A., New Albany, Indiana.
2 specimens crinoids — New Albany, Indiana.

HARDY, THOMAS, Chicago.
1 marcasite concretion — Cutler, Illinois.

KURTZ, S. A., Bucyrus, Ohio.
1 specimen Syringopora — Genoa, Ohio.

LEOPOLD, NATHAN F. AND ALFRED F., Chicago.
450 specimens ores and minerals — Lake Superior, Arizona, Colorado and Montana mining districts.

LUDLOW, MRS. J. B., Chicago.
29 specimens minerals, fossils and geological specimens — various localities.

MORRISON, J. B., Cedar, Colorado.
4 specimens patronite, 4 specimens calciovolborthite — San Miguel County, Colorado.

NEW AETNA PORTLAND CEMENT COMPANY, Fenton, Michigan.
1 specimen marl —Squaw Lake, Michigan.

NEWAYGO PORTLAND CEMENT COMPANY, Newaygo, Michigan.
  2 specimens limestone, 1 specimen shale used for making Portland cement — Newaygo, Michigan

NEW EGYPTIAN PORTLAND CEMENT COMPANY, Fenton, Michigan.
  1 specimen marl — Fenton, Michigan.

NOELLE, MR., Chicago.
  1 quartz geode.

NORCROSS BROS. COMPANY, Chicago.
  1 slab polished marble — Tate, Georgia.

PATEE, FRED, Casper, Wyoming.
  1 specimen soapstone, 10 specimens crystallized hematite — New Mexico.

PEERLESS PORTLAND CEMENT COMPANY, Union City, Michigan.
  1 specimen marl — Union City, Michigan.

PENINSULAR PORTLAND CEMENT COMPANY, Cement City, Michigan.
  1 specimen marl — Cement City, Michigan.

POMEROY, C. W., Chicago.
  17 specimens minerals and ores — various localities.

RAUCHFUSS, CHARLES F., River Forest, Illinois.
  Collection of invertebrate fossils and minerals numbering 3,000 specimens — various localities.

SELLERS, F. H., Chicago.
  1 specimen fossil Lepidodendron — Southwest United States.

THUM, WILLIAM, East Chicago, Indiana.
  1 specimen crystallized bismuth (exchange).

UNIVERSITY OF CHICAGO, Chicago.
  1 specimen Permian amphibian, Diplocaulus — Texas (exchange).

WOLVERINE PORTLAND CEMENT COMPANY, Coldwater, Michigan.
  1 specimen marl — Coldwater, Michigan.

YALE UNIVERSITY, New Haven, Connecticut.
  Skull, jaws and partial skeleton of Teleoceras — Long Island, Kansas (exchange).

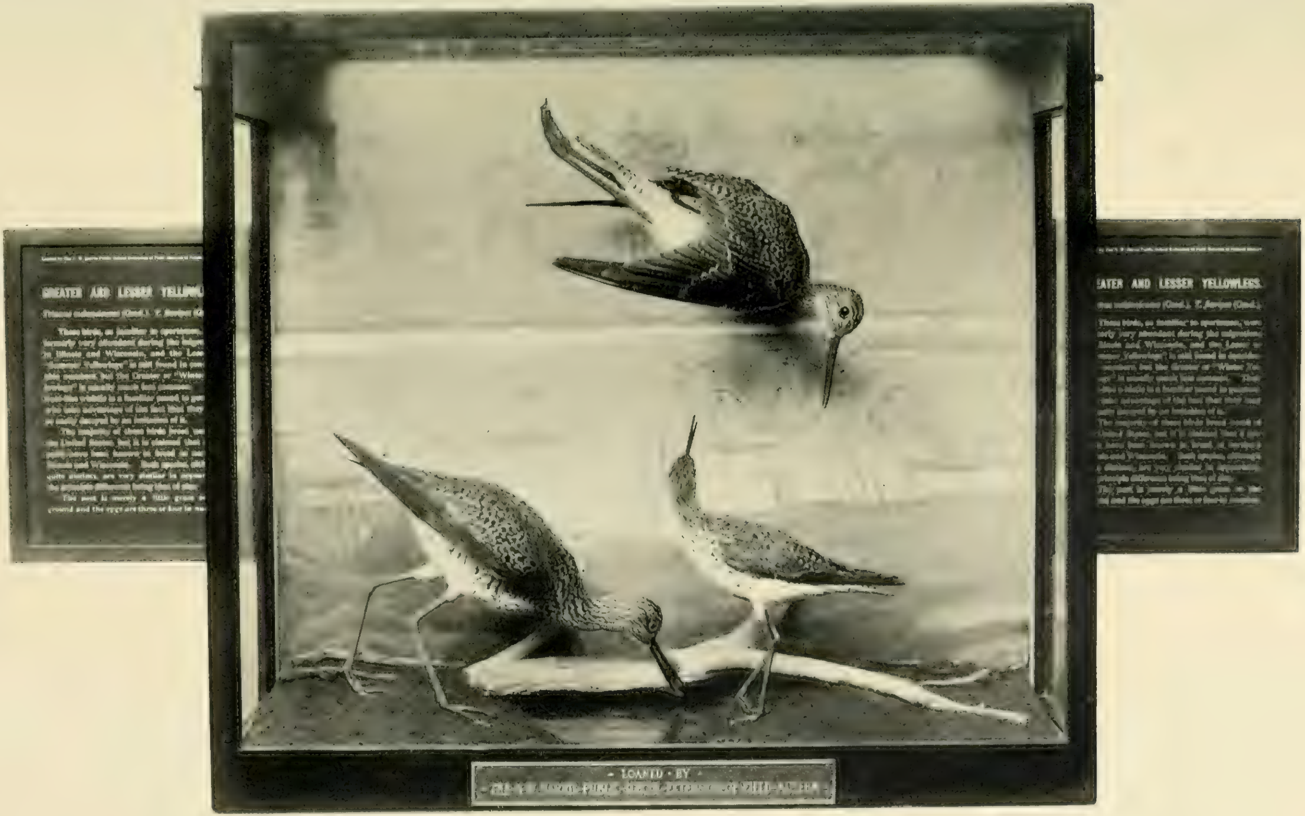
DEPARTMENT OF ZOOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

BIRCH, HUGH T., Chicago.
  2 dragonflies — United States of Colombia, S. A.
  3 cockroaches — United States of Colombia, S. A.
  55 butterflies — United States of Colombia, S. A.
  180 beetles — United States of Colombia, S. A.
  1 butterfly — East Indies.
  1 butterfly — India.
  1 moth — Florida.
  8 moths — Northern Illinois.
  7 butterflies — Northern Illinois.

BLOMQUIST, H. L., Chicago.
  1 beetle — Chicago.

DOA, JOHN S., Chicago.
  3 white Canadian partridges — Canada.



TYPE OF CASE LOANED TO PUBLIC SCHOOLS BY THE N. W. HARRIS PUBLIC SCHOOL EXTENSION OF FIELD MUSEUM

CLARK, B. PRESTON, Boston, Massachusetts.
- 6 sphinx moths — South America, Africa, and Australia.

DICKINSON COMPANY, THE ALBERT, Chicago.
- 5 web-spinning mites — Chicago.

FERSON, E. B., Dunedin, Florida.
- 1 beetle — Dunedin, Florida.
- 1 grasshopper — Dunedin, Florida.

FIELD, MARSHALL AND SPRAGUE, II, A. A., Chicago.
- 46 bird skins — various localities in South America.

FIELD MUSEUM OF NATURAL HISTORY.

Collected by William J. Gerhard:
- 2 water snakes — Illinois.
- 2 garter snakes — New Lenox, Illinois.
- 104 millipeds, dragonflies, bugs, butterflies, moths, flies, beetles, bees, wasps, saw-flies, ichneumon-flies, etc.— Illinois and northern Indiana.
- 1 water snake — New Lenox, Illinois.

Collected by Carl L. Hubbs:
- 180 bugs, flies, beetles, bees and parasites — Mineral Springs, Indiana.
- 1 snake and 1 salamander — Palos Park, Illinois.
- 108 (5 species) amphibians and fishes — near Mineral Springs, Indiana.
- 4 species of fishes — Hickory Creek, Illinois.
- 20 batrachians — near Millers, Indiana.

Collected by Carl L. Hubbs and Leon L. Pray:
- 60 fish skins, 2 turtles, 125 preserved fishes and accessory material — Lake Pepin, Mississippi River.

Collected by Carl L. Hubbs and H. Neumann:
- 75 lagoon fishes — Jackson Park, Chicago.

Purchases:
- 1 Spanish mountain goat (skin and skull) — Sierra de Alhama.
- 4 Pelecanoides georgica — So. Cumberland Bay, South Georgia.
- 1 bird of paradise — Sulonik Bay, north coast of Dutch New Guinea.
- 4 ruffed grouse — Diana, Michigan.
- 172 land shells — on or near Palawan Island, P. I.
- 31 South American mammals — Cayenne, French Guiana.
- 349 bird skins — various localities.
- specimens of Wisconsin fishes.
- 1 golden eagle — Illinois.
- 1 skull of walrus.
- 4 cougars — Cone, Arizona.
- 5 wolves — Senorito, New Mexico.

FRIESSER, JULIUS, Chicago.
- 1 beetle — Chicago.
- 1 ichneumon-fly — Chicago.

GRONEMANN, CARL F., Elgin, Illinois.
- 5 odd mammal skulls — Germany.

GUERET, E. N., Chicago.
- 10 bird-lice from a purple martin — Jackson Park, Chicago.
- 1 beetle — Jackson Park, Chicago.
- 1 skeleton of saw-whet owl — Jackson Park, Chicago.
- 1 skeleton purple martin — Jackson Park, Chicago.

HANKINSON, T. L., Charleston, Illinois.
  158 fishes — Florida and Cuba.

HUBBS, CARL L., Chicago.
  2 beetles — Japan.
  115 (7 species) amphibians and reptiles — northern Indiana.
  2 log perches — Lake Michigan.
  2 lake herring — Winnetka, Illinois.

JONES, ARTHUR B., Chicago.
  6 buffalo — Corbin Park, Newport, New Hampshire.

KWIAT, A. and BEER, E., Chicago.
  11 moths — New York, Illinois and Indiana.

LILJEBLAD, E., Chicago.
  4 water snakes — New Lenox, Illinois.
  2 trap-door spiders and 1 nest — southern California.

LUDLOW, MRS. T. A., Chicago.
  11 small shells — Sea of Gallilee.

MAKOVICKYI, MRS. ANNA SALA, South Oak Park, Illinois.
  2084 butterflies, moths and beetles — North and South America, Europe and Asia.

NARBO, DR. S., Chicago.
  72 shells — Stavanger, Norway.
  2 shells (with hermit crabs) — San Diego, California.

NEUMANN, HERBERT, Chicago.
  1 darter — Lagoon, Jackson Park, Chicago.

PAXSON, L., Bluffton, Indiana.
  1 common coot — Indiana.

PSOTA, FRANK, Chicago.
  1 tarantula wasp — Kingfisher, Oklahoma.

RAUCHFUSS, C. F., River Forest, Illinois.
  28 shells — California and Florida.

ROMANO, JOE, Chicago.
  2 young rabbit skulls.

RUTHLING, PAUL D. R., Los Angeles, California.
  11 salamanders — San Gabriel Mts., So. California.
  7 alligator lizards — vicinity of Los Angeles, California.

STEVENS, MRS. E. A., San Martin, California.
  1 sphinx moth — San Martin, California.

STEVENS, MRS. K., San Diego, California.
  1 tarantula — San Diego, California.

STODDARD, H. L., Chicago.
  1 box turtle — near Mineral Springs, Indiana.

SWARTZ, MISS E. PAULINE, Chicago.
  110 shells — various localities.

TESSIATORE, JOHN, Chicago.
  1 beetle — Chicago.

TRIGGS, CHARLES W., AND COMPANY, Chicago.
  1 lake trout — Lake Huron, off Alpena.

TUNELL, G. G., Evanston, Illinois.
- 5 lizards — El Paso, Texas.
- 18 moths, butterflies, tarantulas, jointed spiders, whip-scorpions and centipedes — El Paso, Texas, and California.

UNIVERSITY OF MICHIGAN, Ann Arbor, Michigan.
- 38 fishes — Hueyapam River, Mexico (exchange).

WILLIAMSON, E. B., Bluffton, Indiana.
- 1 coot — Indiana.

WOLCOTT, A. B., Chicago.
- 1 butterfly — Chicago.
- 1 garter snake — Worth, Illinois.

SECTION OF PHOTOGRAPHY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

FIELD MUSEUM OF NATURAL HISTORY.
- Made by O. C. Farrington:
  - 36 negatives, views of gorges, etc.— Maine.
  - 6 negatives, views showing place of fall of Colby meteorite.
- Made by Charles B. Cory:
  - 2 negatives, portraits of Buffalo.
- Made by Charles F. Millspaugh:
  - 30 negatives, wild flower studies — Ephraim, Wisconsin.
- Made by H. W. Nichols:
  - 132 negatives, landscapes, etc.— Natural Bridge, Virginia.
- Made by Section:
  - 241 negatives of Museum specimens, 2,867 prints from same.

PINKNEY, THOMAS, Chicago.
- 12 photographs, views, etc., New Zealand.

THE LIBRARY.

BOOKS, PAMPHLETS, AND SERIALS

(ACCESSIONS ARE BY EXCHANGE UNLESS OTHERWISE DESIGNATED.)

AFRICA	
Botanic Society, Pietermaritzburg	1
Durban Museum	1
East Africa and Uganda Natural History Society, Nairobi	1
Geological Society, Johannesburg	1
Natal Government Museum, Pietermaritzburg	1
Rhodesia Scientific Association, Bulawayo	1
Royal Society, Cape Town	1
South African Association for Advancement of Science, Cape Town	2
South African Museum, Cape Town	2
Union of South Africa, Department of Agriculture, Pretoria	1
ARGENTINA	
Facultad de Filosofía y Letras, Buenos Aires	2
Museo de Farmacologia, Buenos Aires	2
Museo Nacional, Buenos Aires	1

AUSTRALIA

Australian Museum, Sydney	3
Australian Ornithologists' Union, Melbourne	1
Botanic Gardens and Government Domains, Sydney	2
Department of Agriculture, Adelaide	1
Department of Agriculture, Sydney	1
Department of Mines, Sydney	4
Field Naturalists' Club, Melbourne	1
Government of the Commonwealth, Melbourne	2
Linnean Society of New South Wales, Sydney	1
Public Library, Museum and Art Gallery, Adelaide	1
Public Library, Museums and National Gallery of Victoria, Melbourne	1
Queensland Department of Mines, Brisbane	3
Royal Society of New South Wales, Sydney	1
Royal Society of South Australia, Adelaide	1
Royal Society of Victoria, Melbourne	2
Royal Society of Western Australia, Perth	1
Technical Museum, Sydney	1
University of Melbourne	1
Western Australia Geological Survey, Perth	1

BRAZIL

Bibliotheca Nacional, Rio de Janeiro	2
Instituto Agronomico de Estado, Sao Paulo	1
Instituto Archeologico e Geographico Pernambucano, Recife (gift)	1
Museu Nacional, Rio de Janeiro	2

BRITISH GUIANA

Royal Agricultural and Commercial Society, Demerara	1

CANADA

British Columbia Bureau of Mines, Victoria	1
Department of Agriculture, Ottawa	10
Department of Agriculture, Victoria	2
Department of Indian Affairs, Ottawa	3
Department of Marine and Fisheries, Ottawa	2
Department of Mines, Ottawa	7
Department of Mines, Victoria	1
Department of Naval Service, Ottawa (gift)	3
Department of the Interior, Geological Survey, Ottawa	14
Entomological Society of Nova Scotia, Halifax	1
Entomological Society of Ontario, Toronto	1
Minister of Education, Toronto	1
Natural History Society, Montreal	1
Naturaliste Canadien, Quebec	1
Numismatics and Antiquarian Society, Montreal	1
Ottawa Field Naturalists' Club, Ottawa	1
Provincial Museum, Victoria	2
Royal Canadian Institute, Toronto	2
Royal Society of Canada, Ottawa	1
University of Toronto	2

CEYLON

Colombo Museum	4
Royal Botanic Garden, Peradeniya	3

CHILE

Biblioteca Nacional, Santiago de Chile	2
Chilean Government, Santiago de Chile (gift)	1

CHINA

Botanical and Forestry Department, Hong-Kong	1
Royal Asiatic Society, North China Branch, Shanghai	3

DENMARK

Naturhistorisk Forening, Copenhagen	1
Société Botanique de Copenhagen	2
University, Zoölogical Museum, Copenhagen	2

FIJI ISLANDS

Fijian Society, Suva, Fiji Islands (gift)	1

FRANCE

Académie des Sciences, Paris	2
Ecole d'Anthropologie, Paris	1
Ministère de l'Instruction Publique, Paris (gift)	19
Musée d'Histoire Naturelle, Marseille	2
Muséum National d'Histoire Naturelle, Paris	1
La Nature, Paris	2
Société de Géographie, Paris	1
Société de Géographie, Toulouse	1
Société Nationale d'Agriculture, Paris	1
Société Nationale d' Agriculture, Sciences and Arts, Angers	1
Société Zoologique, Paris	1
Université de Montpellier, Cette	1

GREAT BRITAIN

Anthropological Institute of Great Britain and Ireland, London	1
Ashmolean Natural History Society of Oxfordshire, Oxford	1
Belfast Natural History and Philosophical Society	3
Belfast Naturalists' Field Club	1
Brighton and Hove Natural History and Philosophical Society, Brighton	1
Bristol Museum and Art Gallery	1
British Association for the Advancement of Science, London	1
British Museum (Natural History), London	6
Cambridge Antiquarian Society	2
Cambridge Philosophical Society	1
Cambridge University Library	1
Cardiff Naturalists' Society	1
Croydon Natural History and Scientific Society	1
Department of Agriculture and Technical Institute, Fisheries Branch, Dublin	1
Dove Marine Laboratory, Cullercoats, Northumberland	1
Dumfriesshire and Galloway Natural History and Antiquarian Society, Dumfries	1
Fisheries Board, Edinburgh	2
Geological Society, Liverpool	1
Great Britain Geological Survey, London	1

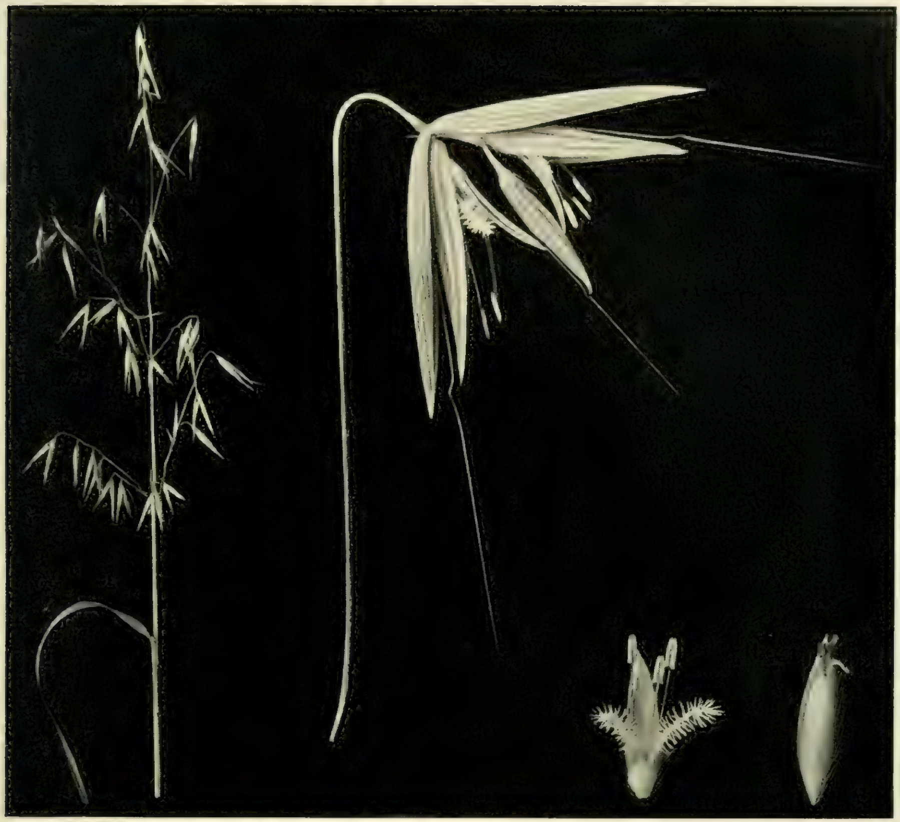
Imperial Bureau of Entomology, London	2
Imperial College of Science and Technology, London	1
Linnean Society, London	3
Liverpool Biological Society	1
Liverpool Marine Biological Society	1
Manchester Literary and Philosophical Society	1
Manchester Museum	1
Marine Biological Station, Port Erin	1
National Museum, Cardiff	1
Royal Botanic Gardens, Kew	2
Royal Dublin Society	1
Royal Geographical Society, London	2
Royal Irish Academy, Dublin	2
Royal Society, London	1
Royal Society of Arts, London	1
South London Entomological and Natural History Society, London	1
Tring Zoölogical Museum	1
Trinity College, Dublin	1
Zoölogical Society, London	1

INDIA

Anthropological Society, Bombay	1
Archaeological Survey, Burma	1
Archaeological Survey, Calcutta	4
Archaeological Survey, Lahore	1
Archaeological Survey, Peshawar	4
Department of Agriculture, Bombay	1
Department of Agriculture, Calcutta	4
Department of Agriculture, Madras	1
Department of Agriculture, Pusa	3
Geological Survey, Calcutta	3
Government Museum, Madras	6
Government of Allahabad	1
National Indian Association, Calcutta (gift)	1
Royal Asiatic Society of Bengal, Calcutta	1
Royal Asiatic Society, Straits Branch, Singapore	2
Royal Botanic Gardens, Calcutta	2
Superintendent of Government Printing, Calcutta	2

ITALY

Accademia Gioenia di Scienze Naturali, Catania	1
American Society, Rome	1
Instituto Geografico de Agostini, Novara	2
Instituto Zoologico, Naples	1
Musei di Zoologia ed Anatomia Comparata, Torino	1
R. Accademia delle Scienze, Turin	2
Società Geografica Italiana, Rome	2
Società Geologica Italiana, Rome	2
Società Italiana di Antropologia, Florence	1
Società Italiana di Scienze Naturali, Milan	1
Società Romana di Antropologia, Rome	1



FLOWERS OF THE OAT
(*Avena sativa*)

A natural sized panicle and an enlarged spikelet showing the floral characters; together with a still greater enlargement of the essential organs and developing grain. Done in glass and wax to illustrate the flowering characteristics of the grasses.

JAPAN	
Bureau of Productive Industry Formosa Government, Taihoku	1
Geological Survey, Tokyo	1
Imperial University of Tokyo, College of Agriculture	1
Imperial University of Tokyo, College of Science	3
Tohuko Imperial University, Sendai	1
Tokyo Botanical Society	1
JAVA	
Bataviaasch Genootschap van Kunsten Wetenschappen, Batavia	2
Department of Agriculture, Buitenzorg	3
Jardin Botanique, Buitenzorg	2
KOREA	
Government-General Chosen, Seoul	1
MEXICO	
Direccion General de Estadistica, Mexico	3
Instituto Geologico, Mexico	2
Sociedad Cientifica "Antonio Alzate," Mexico	1
Sociedad Mexicana de Geografía y Estadistica, Mexico	1
NETHERLANDS	
K. Nederlandsch Aardrijkskundig Genootschap, Amsterdam	1
Nederlandsche Dierkundige Vereeniging, Helder	2
Rijks Museum van Natuurlijke Historie, Leiden	1
Société Botanique Néerlandaise, Nimeguen	2
NEW ZEALAND	
Auckland Institute and Museum, Wellington	1
Department of Agriculture, Wellington	2
Department of Mines, Wellington	2
Dominion Museum, Wellington	2
Geological Survey, Wellington	2
Wellington Acclimatization Society	2
PERU	
Cuerpo de Ingenieros de Minas, Lima	1
Instituto Historico del Peru, Lima	1
Sociedad Geografica, Lima	2
PORTUGAL	
Academia das Sciencias, Lisbon	2
RUSSIA	
Société Impériale des Naturalistes, Moscow	1
SPAIN	
Biblioteca Nacional, Madrid (gift)	2
Junta de Ciencias Naturales, Barcelona	2
Museo de Ciencias Naturales, Madrid	8
R. Academia de Ciencias, Madrid	2
Sociedad Española de Historia Natural, Madrid	2
SWEDEN	
K. Vitt. Hist. och Antik. Akademien, Stockholm	1
Svenska Sällskapet för Antropologi och Geografi, Stockholm	1
SWITZERLAND	
Botanic Garden, Zürich	1
Conservatoire et Jardin Botaniques, Geneva	2

Musée d'Histoire Naturelle, Lausanne	1
Musée Ethnographique, Neuchâtel	1
Naturforschende Gesellschaft, Bern	1
Naturforschende Gesellschaft, Zürich	2
Société Helvétique des Sciences Naturelles, Bern	1
Société Neuchâteloise de Géographie	2

WEST INDIES

Agricultural Experiment Station, Porto Rico	1
Biblioteca Nacional, Havana	1
Department of Agriculture, Kingston	1
Estacion Central Agronomico, Santiago de las Vegas	1
Imperial Department of Agriculture, Barbadoes	1
Jamaica Institute, Kingston	1
Trinidad and Tobago Department of Agriculture, Port of Spain	2
Universidad de la Habana, Havana	2

Bolton, Herbert, Manchester, England	2
Bonaparte, Le Prince, Paris, France	5
Cabrera, A., Madrid, Spain (gift)	9
Candolle, C. De, Geneva, Switzerland	1
Carpenter, G. H., Dublin, Ireland	1
Chodat, R., Geneva, Switzerland	1
Codazzi, Ricardo, Bogota, Colombia	1
Gamio, Manuel, Mexico (gift)	1
Gleerup, C. W. K., Lund, Sweden	1
Guppy, H. B., Salcombe, South Devon, England	1
Hartland, S., Bristol, England	1
Heim, Albert, Zurich, Switzerland	5
Janet, Charles, Paris, France	3
Menegaux, A., Paris, France (gift)	4
Moss, E. G. B., Auckland, New Zealand (gift)	1

ALABAMA

Agricultural Experiment Station, Auburn	2
Geological Survey, University	3

CALIFORNIA

Agricultural Experiment Station, Berkeley	1
California Academy of Science, San Francisco	2
California State Board of Forestry, Sacramento	1
Cooper Ornithological Club, Hollywood	2
Fish and Game Commission, San Francisco	2
Leland Stanford Junior University, Stanford University	3
Lorquin Natural History Club, Los Angeles	1
Oakland Free Library	1
Pioneer Western Lumberman, Sacramento	1
Pomona College, Claremont	2
San Diego Society of Natural History	1
Scripps Institution of Biological Research, La Jolla	1
State Forester, Sacramento (gift)	1
State Mining Bureau, Sacramento	4
University of California, Berkeley	12

COLORADO	
Agricultural Experiment Station, Port Collins	1
Colorado College, Colorado Springs	2
Colorado Scientific Society, Denver	1
University of Colorado, Boulder	1
CONNECTICUT	
Agricultural Experiment Station, New Haven	1
American Oriental Society, New Haven	1
Commissioners of Fisheries and Game, Hartford (gift)	1
Connecticut Academy of Arts and Sciences, New Haven	2
Hartford Public Library	2
State Geological and Natural History Survey, Hartford	1
Storrs Agricultural Experiment Station (gift)	3
Wesleyan University, Middletown	2
Yale University, New Haven	8
FLORIDA	
Agricultural Experiment Station, Tallahassee	2
GEORGIA	
Geological Survey, Atlanta	1
HAWAIIAN ISLANDS	
Agricultural Experiment Station, Honolulu	2
Bernice Pauahi Bishop Museum, Honolulu	1
Board of Commissioners of Agriculture and Forestry, Honolulu	2
College of Hawaii, Honolulu	1
Hawaiian Historical Society, Honolulu	4
IDAHO	
Mining Industry, Boise	1
University of Idaho, Moscow	1
ILLINOIS	
Agricultural Experiment Station, Urbana	6
Art Institute of Chicago	1
Bureau of Statistics and Municipal Library, Chicago (gift)	1
Cement World Publishing Company, Chicago (gift)	1
Chicago Historical Society	1
Chicago Public Library	2
Dial Publishing Company, Chicago	2
Game and Fish Commission, Springfield (gift)	2
Hardwood Record, Chicago (gift)	1
Illinois Audubon Society, Chicago (gift)	1
Inland Printer Publishing Company, Chicago	2
John Crerar Library	3
Kenfield-Leach Company, Chicago	2
Lake Forest College	1
Lewis Institute, Chicago	1
Newberry Library, Chicago	2
Northwestern University, Evanston	1
Open Court Publishing Company, Chicago	1
Peoria Public Library	1
State Academy of Science, Springfield	1

State Board of Agriculture, Springfield	2
State Geological Survey, Urbana	3
State Historical Library, Springfield	2
State Laboratory of Natural History, Urbana	1
State Museum, Springfield	2
Sweet, Wallach and Company, Chicago (gift)	1
University of Chicago	31
University of Illinois, Urbana	15
INDIANA	
Commissioner of Fisheries and Game, Indianapolis (gift)	1
Indiana Academy of Science, Indianapolis	1
Purdue University, Lafayette	2
State Board of Forestry, Indianapolis (gift)	1
University of Notre Dame	1
IOWA	
Academy of Science, Des Moines	1
Coe College, Cedar Rapids	1
Geological Survey, Des Moines	2
Iowa State Horticultural Society, Des Moines	1
State Fish and Game Commission, Des Moines	1
University of Iowa, Iowa City	2
KANSAS	
Agricultural Experiment Station, Manhattan	5
State Board of Agriculture, Topeka	2
State Historical Society, Topeka	1
University of Kansas, Geological Survey, Lawrence	2
KENTUCKY	
Agricultural Experiment Station, Lexington	2
LOUISIANA	
Agricultural Experiment Station, Baton Rouge	3
MAINE	
Agricultural Experiment Station, Orono	3
Bowdoin College, Brunswick	1
Portland Public Library	1
Portland Society of Natural History	1
MARYLAND	
Academy of Sciences, Baltimore	1
Agricultural Experiment Station, College Park	1
Enoch Pratt Free Library, Baltimore	2
Johns Hopkins University, Baltimore	2
State Board of Forestry, Baltimore	2
State Horticultural Society, College Park	2
MASSACHUSETTS	
Agricultural Experiment Station, Amherst	4
American Academy of Arts and Sciences, Boston	1
American Antiquarian Society, Boston	1
Amherst College	1
Archaeological Institute of America, Boston	1
Arnold Arboretum, Jamaica Plain, Massachusetts	1
Boston Museum of Fine Arts	2

Boston Public Library	1
Boston Society of Natural History	2
Essex Institute, Salem	1
Harvard College, Cambridge	2
Harvard Museum of Comparative Zoölogy, Cambridge	3
Harvard University, Gray Herbarium, Cambridge	2
Horticultural Society, Boston	2
Institute of Technology, Boston	1
New Bedford Free Public Library	2
Peabody Institute	1
Peabody Museum, Cambridge	1
Peabody Museum, Salem	1
Phillips Academy, Andover	1
Salem Public Library	2
Springfield City Library Association	2
Springfield Natural History Museum	1
State Board of Agriculture, Boston (gift)	2
State Forester, Boston (gift)	3
State Ornithologist, Boston	3
Tufts College, Boston	1
Williams College, Williamstown	3
Worcester Free Public Library	1
MICHIGAN	
Academy of Sciences, Ann Arbor	2
Agricultural Experiment Station, Agricultural College	7
Department of Parks and Boulevards, Detroit	1
Detroit Museum of Art	2
Game, Fish and Forest Commission, Lansing (gift)	1
Geological and Biological Survey, Lansing	2
Grand Rapids Public Library	2
Michigan College of Mines, Houghton	1
National Educational Association of the United States, Ann Arbor	1
Parke Davis and Company, Detroit (gift)	1
State Board of Agriculture, Lansing	1
State Board of Library Commissions, Lansing	1
State Library, Lansing	1
University of Michigan, Ann Arbor	3
MINNESOTA	
Agricultural Experiment Station, St. Paul	5
Minneapolis Society of Fine Arts	1
Minnesota Geological and Natural History Survey, Minneapolis	1
Minnesota Historical Society, St. Paul	2
St. Paul Institute (gift)	3
University of Minnesota, Minneapolis	4
MISSISSIPPI	
Agricultural Experiment Station, Agricultural College	4
Mississippi Geological Survey, Jackson	1
MISSOURI	
Agricultural Experiment Station, Columbia	6
Bureau of Geology and Mines, Jefferson City	1

City Art Museum, St. Louis	2
Missouri Botanical Garden, St. Louis	1
St. Louis Academy of Sciences	1
St. Louis Mercantile Library Association	1
St. Louis Public Library	2
St. Louis University	1
State Game and Fish Commission, Jefferson City	1
State Geologist, Rolla	2
State Historical Society, Columbia	1
University of Missouri, Columbia	1
Washington University, St. Louis	3
MONTANA	
Agricultural Experiment Station, Bozeman	12
NEBRASKA	
Academy of Sciences, Lincoln	1
Agricultural Experiment Station, Lincoln	2
Public Library, Omaha	1
University of Nebraska, Lincoln	7
NEW HAMPSHIRE	
College of Agriculture, Durham	4
Forestry Commission, Concord (gift)	2
NEW JERSEY	
Agricultural Experiment Station, Trenton	8
Department of Conservation and Development, Trenton	2
Newark Museum Association	4
Princeton University	3
NEW MEXICO	
Agricultural Experiment Station, Mesilla Park	1
Historical Society, Santa Fé	3
Museum of New Mexico, Santa Fé	1
NEW YORK	
Agricultural Experiment Station, Geneva	4
American Geographical Society, New York City	2
American Institute of Mining Engineers, New York City	2
American Museum of Natural History, New York City	25
Art World, New York City (gift)	2
Brooklyn Institute of Arts and Sciences	5
Forest and Stream Publishing Company, New York City	2
Columbia University, New York City	2
Cornell University, Ithaca	2
Lake Mohonk Conference of International Arbitration, Lake Mohonk	1
Metropolitan Museum of Art, New York City	5
New York Academy of Sciences, New York City	1
New York Botanical Garden, New York City	1
Pratt Institute Free Library, Brooklyn	2
Public Library, New York City	15
Rochester Academy of Sciences	1
State Library, Albany	1
State Museum, Albany	8
Staten Island Association of Arts and Sciences, New York City	2

Syracuse University	1
Zoölogical Society, New York City	4
NORTH CAROLINA	
Agricultural Experiment Station, Raleigh	1
Elisha Mitchell Scientific Society, Chapel Hill	1
NORTH DAKOTA	
State Geological Survey, Grand Forks	2
University of North Dakota, University	2
OHIO	
Agricultural Experiment Station, Wooster	3
Cincinnati Museum Association	2
Cincinnati Society of Natural History	1
Cleveland Museum of Art	2
Cleveland Public Library	2
Denison University, Granville	1
Geological Survey, Columbus	1
Lloyd Library, Cincinnati	2
Marietta College	2
Oberlin College	1
Ohio State Academy of Science, Columbus	2
Pharmaceutical Review Publishing Company	1
State Archæological and Historical Society, Columbus	1
State University, Columbus	14
University of Cincinnati	10
Wilson Ornithological Club, Oberlin	1
OKLAHOMA	
Game and Fish Department, Oklahoma City (gift)	1
OREGON	
Agricultural Experiment Station, Corvallis (gift)	2
Game and Fish Commission, Corvallis	3
Timberman, Portland (gift)	1
University of Oregon, Eugene	1
PENNSYLVANIA	
Agricultural Experiment Station, Harrisburg	2
American Entomological Society, Philadelphia	4
American Journal of Pharmacy, Philadelphia	1
American Philosophical Society, Philadelphia	2
Association of Engineering Societies, Philadelphia	1
Bryn Mawr College	1
Carlisle Indian School	1
Carnegie Institute, Pittsburgh	2
Carnegie Library, Pittsburgh	2
Carnegie Museum, Pittsburgh	2
Delaware County Institute of Science, Media	1
Department of Forestry, Harrisburg (gift)	1
Engineers' Society of Western Pennsylvania, Pittsburgh	1
Franklin Institute, Philadelphia	2
Pennsylvania Museum and School of Industrial Art, Philadelphia	2
Philadelphia Academy of Natural Sciences	1
Philadelphia College of Physicians	1

Philadelphia Commercial Museum	1
State Department of Agriculture, Harrisburg	1
University of Pennsylvania, Philadelphia	5
Wagner Free Institute of Science, Philadelphia	1
Wistar Institute of Anatomy and Biology, Philadelphia	7
Wyoming Historical and Geological Society, Wilkes-Barre	1
PHILIPPINE ISLANDS	
Bureau of Science, Manila	6
Department of Agriculture, Manila	1
Department of Interior, Bureau of Forestry, Manila	1
Department of Interior, Bureau of Science, Manila	4
Department of Public Instruction, Manila	2
Philippine Library, Manila	1
RHODE ISLAND	
Roger Williams Park Museum, Providence	1
SOUTH CAROLINA	
Charleston Museum	1
Thornwell Museum, Charleston	1
Winthrop Normal and Industrial College, Rock Hill	1
SOUTH DAKOTA	
Agricultural Experiment Station, Brookings	1
School of Mines, Rapid City (gift)	1
TENNESSEE	
Agricultural Experiment Station, Nashville	3
State Geological Survey, Nashville	4
TEXAS	
International Society of Archæologists, Hico	1
Scientific Society, San Antonio	2
UTAH	
Agricultural Experiment Station, Logan	1
State Horticultural Commission, Salt Lake	1
VERMONT	
State Geologist, Burlington	1
University of Vermont, Burlington	4
VIRGINIA	
State Library, Richmond	1
WASHINGTON	
State Geological Survey, Olympia	1
State Library, Seattle	1
WASHINGTON, D. C.	
American Mining Congress	1
Biological Society	1
International Congress of Americanists (gift)	1
National Academy of Sciences	1
National Geographic Society	2
United States Government	624
WEST VIRGINIA	
Agricultural Experiment Station, Morgantown	2
Forest, Game and Fish Warden, Belington (gift)	3
University of West Virginia, Morgantown	1

WISCONSIN

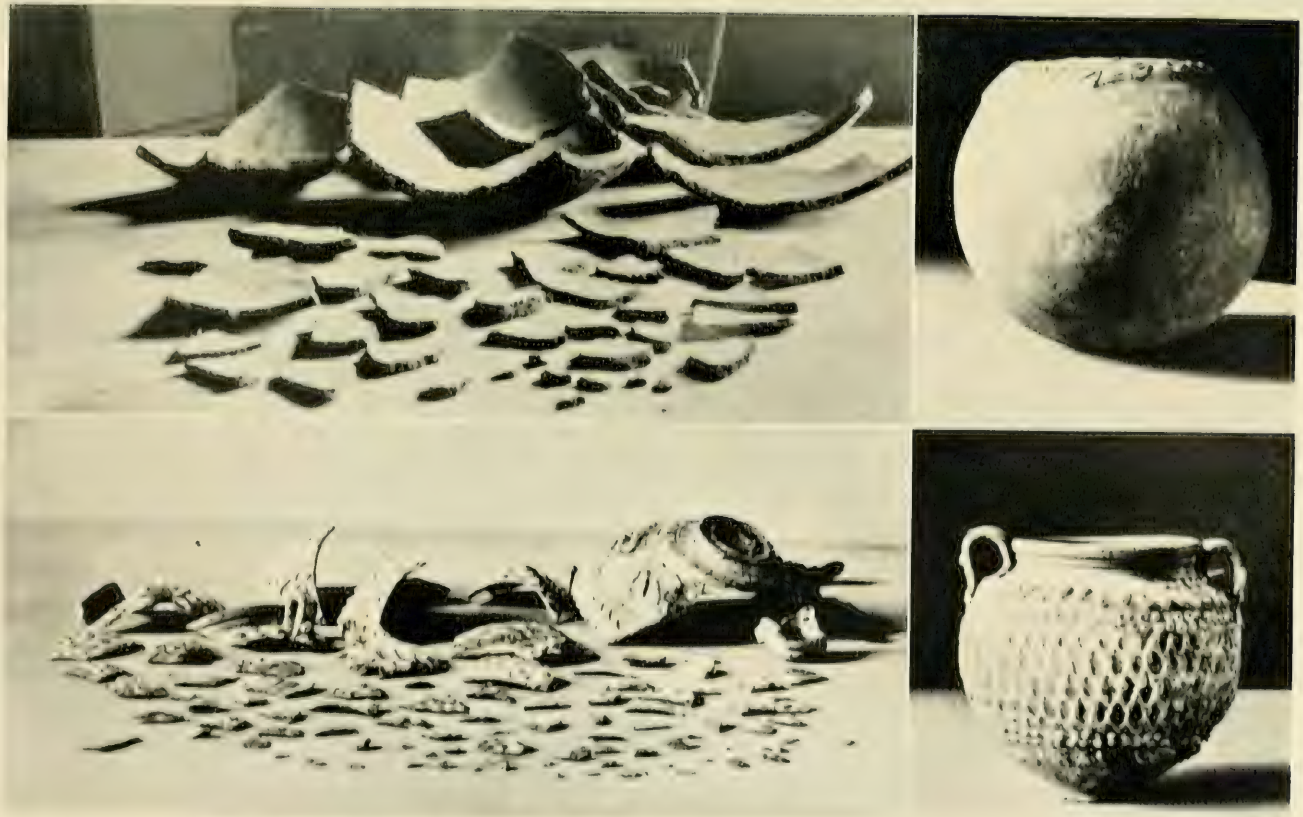
Agricultural Experiment Station, Madison	2
Archaeological Society, Milwaukee	1
Beloit College	2
Milwaukee Public Museum	1
State Conservation Commission, Madison	2
State Horticultural Society, Madison	2
University of Wisconsin	8

WYOMING

Agricultural Experiment Station, Laramie	1

Adams, Charles C., Syracuse, New York	1
Arthur, J. C., LaFayette, Indiana	13
Alliot, Hector, Los Angeles	1
Atkinson, George E., Ithaca, New York	6
Ayer, Edward E., Chicago (gift)	70
Baker, Frank Collins, Rochester, New York	1
Barnes, William, Decatur, Illinois (gift)	3
Bascom, Florence, Bryn Mawr, Pennsylvania	1
Benedict, Laura Watson, New York City	1
Bent, A. C., Washington, D. C.	9
Beyer, H. Otley, Manila, Philippine Islands	1
Bingham, Hiram, New Haven, Connecticut	2
Boas, Franz, New York City (gift)	1
Brandegee, T. S., Berkeley, California	1
Clark, B. Preston, Cambridge, Massachusetts (gift)	1
Clark, Harold T., Cleveland, Ohio	2
Cockerell, T. D. A., Boulder, Colorado	18
Cole, Fay Cooper, Chicago	1
Eigenmann, Carl H., Bloomington, Indiana	1
Farrington, O. C., Chicago	1
Farwell, Oliver A., Detroit, Michigan	3
Ford, W. E., New Haven, Connecticut	8
Gage, Simon H., Ithaca, New York	3
Garman, Samuel, Cambridge, Massachusetts (gift)	1
Gay, Frederick P., Berkeley, California (gift)	1
Gerhard, W. J., Chicago	5
Goldman, E. A., Washington, D. C.	1
Hall, Julian H., Athens, Illinois (gift)	60
Harris, Gilbert D., Ithaca, New York	1
Heller, A. A., Chico, California	1
Hodge, Frederick Webb, Washington, D. C.	1
Holland, W. J., Pittsburgh, Pennsylvania	1
Hubbs, Carl L., Chicago	3
Jillson, Willard R., Prestonberg, Kentucky (gift)	2
Kroeber, A. L., San Francisco, California	1
Laufer, Berthold, Chicago	9
Liljeblad, Emil, Chicago (gift)	1
Maccurdy, George Grant, New Haven, Connecticut	65
Mason, J. Alden, Chicago	8

Means, Philip Ainsworth, Boston, Massachusetts (gift)	1
Mack, Mrs. Seth E., Chicago (gift)	49
Millspaugh, C. F., Chicago	55
Moorehead, Warren K., Andover, Massachusetts	1
Norton, Arthur H., Portland, Maine	5
Osborn, Henry Fairfield, New York City	21
Osgood, W. H., Chicago	1
Potts, Rufus M., Springfield, Massachusetts (gift)	2
Randall and Company, T. A., Indianapolis, Indiana (gift)	2
Smith, Harlan I., Canada	1
Springer, Frank, Washington, D. C. (gift)	1
Strong, R. M., Nashville, Tennessee (gift)	3
Taubenhaus, J. J., College Station, Texas (gift)	3
Washington, Henry S., Locust, New Jersey	1



Restoration of Broken Pottery in the Repair Section of Department of Anthro

ARTICLES OF INCORPORATION.

STATE OF ILLINOIS.

DEPARTMENT OF STATE.

WILLIAM H. HINRICHSEN, *Secretary of State.*

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

Whereas, a Certificate duly signed and acknowledged having been filed in the office of the Secretary of State, on the 16th day of September, A. D. 1893, for the organization of the COLUMBIAN MUSEUM OF CHICAGO, under and in accordance with the provisions of "An Act Concerning Corporations," approved April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a copy of which certificate is hereto attached.

Now, therefore, I, William H. Hinrichsen, Secretary of State of the State of Illinois, by virtue of the powers and duties vested in me by law, do hereby certify that the said COLUMBIAN MUSEUM OF CHICAGO is a legally organized Corporation under the laws of this State.

In Testimony Whereof, I hereto set my hand and cause to be affixed the Great Seal of State. Done at the City of Springfield, this 16th day of September, in the year of our Lord one thousand eight hundred and ninety-three, and of the Independence of the United States the one hundred and eighteenth.

W. H. HINRICHSEN,
[SEAL.] *Secretary of State.*

TO HON. WILLIAM H. HINRICHSEN,
SECRETARY OF STATE:

SIR:

We, the undersigned citizens of the United States, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled "An Act Concerning Corporations," approved April 18, 1872, and all acts amendatory thereof; and that for the purposes of such organization we hereby state as follows, to-wit:

1. The name of such corporation is the "COLUMBIAN MUSEUM OF CHICAGO."

2. The object for which it is formed is for the accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating Art, Archæology, Science and History.

3. The management of the aforesaid museum shall be vested in a Board of FIFTEEN (15) TRUSTEES, five of whom are to be elected every year.

4. The following named persons are hereby selected as the Trustees for the first year of its corporate existence:

Ed. E. Ayer, Charles B. Farwell, George E. Adams, George R. Davis, Charles L. Hutchinson, Daniel H. Burnham, John A. Roche, M. C. Bullock, Emil G. Hirsch, James W. Ellsworth, Allison V. Armour, O. F. Aldis, Edwin Walker, John C. Black and Frank W. Gunsaulus.

3. The location of the Museum is in the City of Chicago, County of Cook, and State of Illinois.

(*Signed*).

George E. Adams, C. B. Farwell, Sidney C. Eastman, F. W. Putnam, Robert McMurdy, Andrew Peterson, L. J. Gage, Charles L. Hutchinson, Ebenezer Buckingham, Andrew McNally, Edward E. Ayer, John M. Clark, Herman H. Kohlsaat, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel F. Hatch, Henry Wade Rogers, Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg, James W. Scott, Geo. F. Bissell, John R. Walsh, Chas. Fitzsimmons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, George R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, George M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS }
COOK COUNTY } ss.

I, G. R. MITCHELL, a NOTARY PUBLIC in and for said County, do hereby certify that the foregoing petitioners personally appeared before me and acknowledged severally that they signed the foregoing petition as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 14th day of September, 1893.

G. R. MITCHELL,
[SEAL.] NOTARY PUBLIC, COOK COUNTY, ILL.

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the corporate members held the 25th day of June, 1894, the name of the COLUMBIAN MUSEUM was changed to FIELD COLUMBIAN MUSEUM. A certificate to this effect was filed June 26, 1894, in the office of the Secretary of State for Illinois.

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the corporate members held the 8th day of November, 1905, the name of the FIELD COLUMBIAN MUSEUM was changed to FIELD MUSEUM OF NATURAL HISTORY. A certificate to this effect was filed November 10, 1905, in the office of the Secretary of State for Illinois.

AMENDED BY-LAWS.

(JUNE 12, 1916.)

ARTICLE I.

MEMBERS.

SECTION 1. Members shall be of five classes, Annual Members, Corporate Members, Life Members, Patrons and Honorary Members.

SEC. 2. Annual Members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of ten dollars ($10.00), payable within thirty days after notice of election, and within thirty days after each recurring annual date. The failure of any person to make such initiatory payment and such annual payments within said time shall, at the option of the Board of Trustees, be sufficient grounds for the forfeiture of an annual membership.

This said annual membership shall entitle the member to:

First.— Free admittance for the member and family, to the Museum on any day.

Second.— Ten tickets every year, admitting the bearer to the Museum on pay days.

Third.— A copy of all publications of the Museum when requested.

Fourth.— Invitations to all special exhibits, receptions, lectures, or other functions which may be given at the Museum.

SEC. 3. The Corporate Members shall consist of the persons named in the articles of incorporation, and of such other persons as shall be chosen from time to time by the Board of Trustees at any of its meetings, upon the recommendation of the Executive Committee; provided, that such persons named in the articles of incorporation shall, within ninety days from the adoption of these By-Laws, and persons hereafter chosen as Corporate Members shall, within ninety days of their election, pay into the treasury the sum of twenty dollars ($20.00) or more. The failure of any person to make such payment within said time, shall, at the option of the Board of Trustees, be ground for forfeiture of his corporate membership. Corporate Members becoming Life Members, Patrons or Honorary Members shall be exempt from dues. Annual meetings of said Corporate Members shall be held at the same place and on the same day that the annual meeting of the Board of Trustees is held.

SEC. 4. Any person paying into the treasury the sum of five hundred dollars ($500.00), at any one time, shall, upon the unanimous vote of the Board, become a Life Member. Life Members shall be exempt from all dues.

SEC. 5. Patrons shall be chosen by the Board upon recommendation of the Executive Committee from among persons who have rendered eminent service to the Museum. They shall be exempt from all dues, and, by virtue of their election as Patrons, shall also be Corporate Members.

SEC. 6. Honorary Members shall be chosen by the Board from among persons who have rendered eminent service to science, and only upon unanimous nomination of the Executive Committee. They shall be exempt from all dues.

ARTICLE II.

BOARD OF TRUSTEES.

SECTION 1. The Board of Trustees shall consist of fifteen members. The respective members of the Board now in office, and those who shall hereafter be elected, shall hold office during life. Vacancies occurring in the Board shall be filled at a regular meeting of the Board, upon the nomination of the Executive Committee made at a preceding regular meeting, by a majority vote of the members of the Board present.

SEC. 2. Regular meetings of the Board shall be held on the second Monday of each month. Special meetings may be called at any time by the President, and shall be called by the Secretary upon the written request of three Trustees. Five Trustees shall constitute a quorum, except for the election of officers or the adoption of the Annual Budget, when seven Trustees shall be required, but meetings may be adjourned by any less number from day to day, or to a day fixed, previous to the next regular meeting.

SEC. 3. Reasonable written notice, designating the time and place of holding meetings, shall be given by the Secretary.

ARTICLE III.

HONORARY TRUSTEES

SECTION 1. As a mark of respect, and in appreciation of services performed for the Institution, those Trustees who by reason of inability, on account of change of residence, or for other cause or from indisposition to serve longer in such capacity shall resign their place upon the Board, may be elected, by a majority of those present at any regular meeting of the Board, an Honorary Trustee for life. Such Honorary Trustee will receive notice of all meetings of the Board of Trustees, whether regular or special, and will be expected to be present at all such meetings and participate in the deliberations thereof, but an Honorary Trustee shall not have the right to vote.

ARTICLE IV.

OFFICERS.

SECTION 1. The officers shall be a President, a First Vice-President, a Second Vice-President, a Secretary, an Assistant Secretary and a Treasurer. They shall be chosen by ballot by the Board of Trustees, a majority of those present and voting being necessary to elect. The President, the First Vice-President, and the Second Vice-President shall be chosen from among the members of the Board of Trustees. The meeting for the election of officers shall be held on the second Monday of January of each year, and shall be called the Annual Meeting.

SEC. 2. The officers shall hold office for one year, or until their successors are elected and qualified, but any officer may be removed at any regular meeting of the

Board of Trustees by a vote of two-thirds of all the members of the Board. Vacancies in any office may be filled by the Board at any meeting.

Sec. 3. The officers shall perform such duties as ordinarily appertain to their respective offices, and such as shall be prescribed by the By-Laws, or designated from time to time by the Board of Trustees.

ARTICLE V.

THE TREASURER.

Section 1. The Treasurer shall be custodian of the funds of the Corporation, except as hereinafter provided. He shall make disbursements only upon warrants drawn by the Director and countersigned by the President. In the absence or inability of the Director, warrants may be signed by the Chairman of the Finance Committee, and in the absence or inability of the President, may be countersigned by one of the Vice-Presidents. But no warrants shall be issued, except in conformity with a regularly prepared voucher, giving the name of the payee and stating the occasion for the expenditure, and verified and approved as hereinafter prescribed. It shall be no part of the duties of the Treasurer to see that the warrants have been issued in conformity with such vouchers.

Sec. 2. The securities and muniments of title belonging to the corporation shall be placed in the custody of some Trust Company of Chicago to be designated by the Board of Trustees, which Trust Company shall collect the income and principal of said securities as the same become due, and pay same to the Treasurer, except as hereinafter provided. Said Trust Company shall allow access to and deliver any or all securities or muniments of title to the joint order of the following officers, namely: The President or one of the Vice-Presidents, jointly with the Chairman, or one of the Vice-Chairmen, of the Finance Committee of the Museum.

Sec. 3. The Treasurer shall give bond in such amount, and with such sureties, as shall be approved by the Board of Trustees.

Sec. 4. All vouchers executed for the payment of liabilities incurred in the administration of the Museum, shall be verified by the Auditor, and approved for payment by the Director, and the Chairman of the Administration Committee. All vouchers executed for expenditures for the construction or reconstruction of the Museum building, or buildings, shall be verified by the Auditor and approved for payment by the Chairman of the Building Committee. All vouchers executed in connection with the investments of the Corporation, or, in any way having to do with the endowment funds of the Corporation, shall be verified by the Auditor and approved for payment by the Chairman of the Finance Committee.

Sec. 5. The Harris Trust and Savings Bank of Chicago shall be Custodian of "The N. W. Harris Public School Extension of Field Museum" fund. The Bank shall make disbursements only upon warrants drawn by the Director and countersigned by the President. In the absence or inability of the Director, warrants may be signed by the Chairman of the Finance Committee, and in the absence or inability of the President, may be countersigned by one of the Vice-Presidents. But no warrant shall be issued, except in conformity with a regularly prepared voucher, giving the name of the payee and stating the occasion for the expenditure, and verified and approved by the Auditor, the Director and Chairman of the Administration Committee. It shall be no part of the duties of the said Custodian to see that the warrants have been issued in conformity with such vouchers.

ARTICLE VI.

THE DIRECTOR.

SECTION 1. The Board of Trustees shall elect a Director of the Museum, who shall remain in office until his successor shall be elected. He shall have immediate charge and supervision of the Museum, and shall control the operations of the institution, subject to the authority of the Board of Trustees and its Committees. The Director shall be the official medium of communication between the Board, or its Committees, and the scientific staff and maintenance force.

SEC. 2. There shall be four scientific departments of the Museum — Anthropology, Botany, Geology and Zoology, each under the charge of a Curator, subject to the authority of the Director. The Curators shall be appointed by the Board upon the recommendation of the Director, and shall serve during the pleasure of the Board. Subordinate staff officers in the scientific departments shall be appointed and removed by the Director upon the recommendation of the Curators of the respective Departments. The Director shall have authority to employ and remove all other employees of the Museum.

SEC. 3. The Director shall make report to the Board at each regular meeting, recounting the operations of the Museum for the previous month. At the Annual Meeting, the Director shall make an Annual Report, reviewing the work of the Museum for the previous year, which Annual Report shall be published in pamphlet form for the information of the Trustees and Members, and for free distribution in such number as the board may direct.

ARTICLE VII.

AUDITOR.

SECTION 1. The Board shall appoint an Auditor, who shall hold his office during the pleasure of the Board. He shall keep proper books of account, setting forth the financial condition and transactions of the Corporation, and of the Museum, and report thereon at each regular meeting, and at such other times as may be required by the Board. He shall certify to the correctness of all vouchers for the expenditure of the money of the corporation.

ARTICLE VIII.

COMMITTEES.

SECTION 1. There shall be six Committees as follows: Finance, Building, Auditing, Pension, Administration and Executive.

SEC. 2. The Finance, Auditing and Pension Committees shall each consist of three members, and the Building and Administration Committees shall each consist of five members. All members of these five Committees shall be elected by ballot by the Board at the Annual Meeting, and shall hold office for one year, and until their successors are elected and qualified. In electing the members of these Committees, the Board shall designate the Chairman and Vice-Chairman by the order in which the members are named in the respective Committee; the first member named shall be Chairman, the second named the Vice-Chairman, and the third named, Second Vice-Chairman, succession to the Chairmanship being in this order in the event of the absence or disability of the Chairman.

SEC. 3. The Executive Committee shall consist of the President of the Board, the Chairman of the Finance Committee, the Chairman of the Building Committee, the Chairman of the Administration Committee, the Chairman of the Auditing Committee, the Chairman of the Pension Committee, and two other members of the Board to be elected by ballot at the Annual Meeting.

SEC. 4. Four members shall constitute a quorum of the Executive Committee; three members shall constitute a quorum of the Administration Committee, and in all other standing Committees, two members shall constitute a quorum. In the event that, owing to the absence or inability of members, a quorum of the regularly elected members cannot be present at any meeting of any Committee, then the Chairman thereof, or his successor, as herein provided, may summon any member of the Board of Trustees to act in place of the absentee.

SEC. 5. The Finance Committee shall have supervision of investing the endowment and other permanent funds of the Corporation, and the care of such real estate as may become its property. It shall have authority to invest, sell, and reinvest funds, subject to the approval of the Board.

SEC. 6. The Building Committee shall have supervision of the construction, reconstruction, and extension of any and all buildings used for Museum purposes.

SEC. 7. The Executive Committee shall be called together from time to time as the Chairman may consider necessary, or as he may be requested to do by three members of the Committee, to act upon such matters affecting the administration of the Museum as cannot await consideration at the Regular Monthly Meetings of the Board of Trustees. It shall, before the beginning of each fiscal year, prepare and submit to the Board an itemized Budget, setting forth the probable receipts from all sources for the ensuing year, and make recommendations as to the expenditures which should be made for routine maintenance and fixed charges. Upon the adoption of the Budget by the Board, the respective Committees shall be considered as authorized to make the expenditures detailed therein. No increase in the expenditures under any items of the Budget shall be made, except by authority of the Board of Trustees, but the Executive Committee shall have authority, in cases of emergency, to expend a further total sum not exceeding two thousand dollars in any one month.

SEC. 8. The Administration Committee shall have general supervision of the affairs of the Museum. The Committee shall hold one meeting each month with the Director at the Museum within a week preceding each Monthly Meeting of the Board of Trustees.

SEC. 9. The Auditing Committee shall have supervision over all accounting and bookkeeping, and full control of the financial records. It shall cause the same, once each year, or oftener, to be examined by an expert individual or firm, and shall transmit the report of such expert individual or firm to the Board at the next ensuing regular meeting after such examination shall have taken place.

SEC. 10. The Pension Committee shall determine by such means and processes as shall be established by the Board of Trustees to whom and in what amount the Pension Fund shall be distributed. These determinations or findings shall be subject to the approval of the Board of Trustees.

SEC. 11. The Chairman of each Committee shall report the acts and proceedings thereof at the next ensuing regular meeting of the Board.

SEC. 12. The President shall be ex-officio a member of all Committees and Chairman of the Executive Committee. Vacancies occurring in any Committee may be filled by ballot at any regular meeting of the Board.

ARTICLE IX.

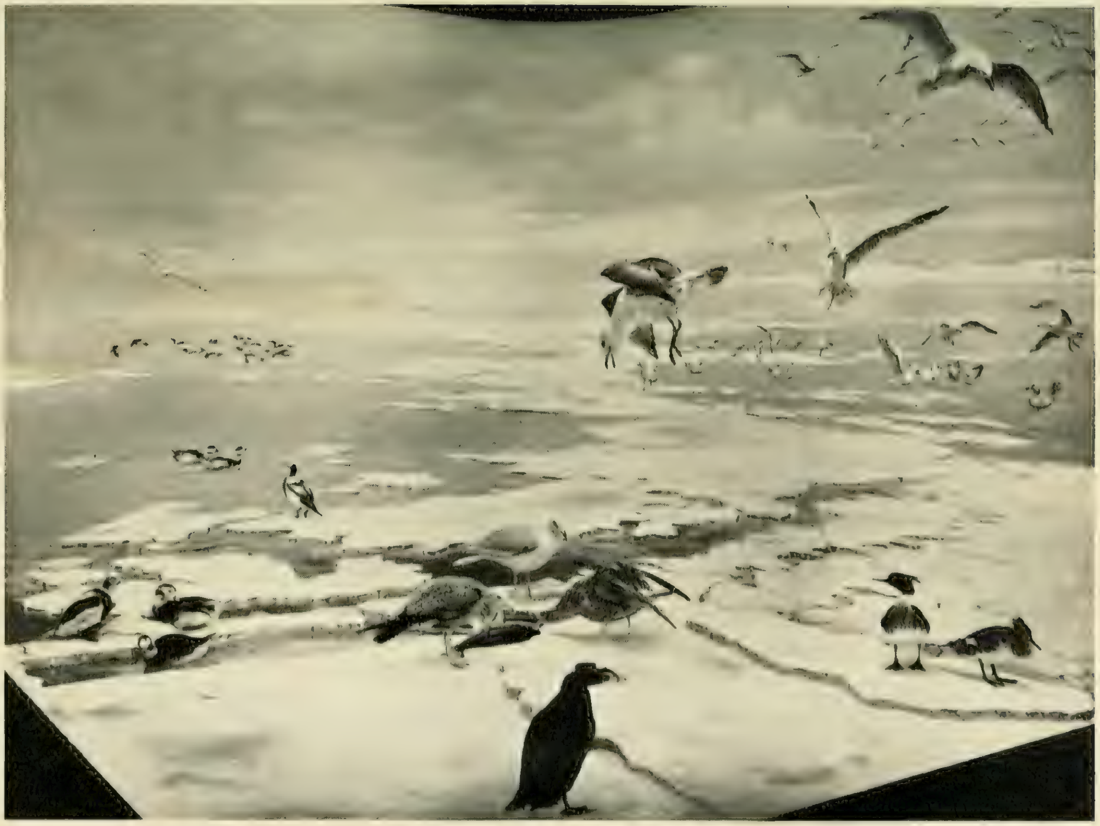
NOMINATING COMMITTEE.

Section 1. At the November meeting of the Board, each year a Nominating Committee of three shall be chosen by lot. Said Committee shall make nominations for membership of the Finance Committee, the Building Committee, the Administration Committee, the Auditing Committee, and the Pension Committee, and for two members of the Executive Committee, from among the Trustees, to be submitted at the ensuing December meeting and voted upon at the following Annual Meeting in January.

ARTICLE X.

Section 1. Whenever the word "Museum" is employed in the By-Laws of the Corporation, it shall be taken to mean the building in which the Museum as an Institution is located and operated, the material exhibited, the material in study collections, or in storage, furniture, fixtures, cases, tools, records, books, and all appurtenances of the Institution, and the workings, researches, installations, expenditures, field work, laboratories, library, publications, lecture courses, and all scientific and maintenance activities.

Sec. 2. These By-Laws may be amended at any regular meeting of the Board of Trustees by a two-thirds vote of all the members present, provided the amendment shall have been proposed at a preceding regular meeting.



Bird-Life on Lake Michigan in Winter

HONORARY MEMBERS.

EDWARD E. AYER
MRS. TIMOTHY B. BLACKSTONE
CHARLES B. CORY
HARLOW N. HIGINBOTHAM
STANLEY McCORMICK

PATRONS.

ALLISON V. ARMOUR
EDWARD B. BUTLER
ALBERT M. COLLINS
LEE GARNETT DAY
ERNEST R. GRAHAM
FRANK W. GUNSAULUS
CHARLES L. HUTCHINSON
VERNON SHAW KENNEDY
GEORGE MANIERRE
CHARLES H. MARKHAM
JOHN S. MILLER
JOHN BARTON PAYNE
HOMER E. SARGENT
FREDERICK J. V. SKIFF
WILLARD A. SMITH

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ALDIS, OWEN F.
ARMOUR, ALLISON V.
AYER, EDWARD E.

BARTLETT, A. C.
BLAIR, WATSON F.
BUTLER, EDWARD B.

CHALMERS, W. J.
CHATFIELD-TAYLOR, H. C.
CLARK, JOHN M.
COLLINS, ALBERT M.
CRANE, RICHARD T.

DAY, LEE GARNETT

EASTMAN, SIDNEY C.
ELLSWORTH, JAMES W.

FIELD, MARSHALL
FIELD, STANLEY

GAGE, LYMAN J.
GETTY, HENRY H.
GRAHAM, ERNEST R.
GUNSAULUS, FRANK W.
GUNTHER, C. F.

HIGINBOTHAM, H. N.
HUTCHINSON, CHARLES L.

JONES, ARTHUR B.

KEEP, CHAUNCEY
KENNEDY, VERNON SHAW
KOHLSAAT, HERMAN H.

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MARKHAM, CHARLES H.
MANIERRE, GEORGE
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MITCHELL, JOHN J.

PAYNE, JOHN BARTON
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PORTER, GEORGE F.

RYERSON, MARTIN A.

SARGENT, HOMER E.
SKIFF, FREDERICK J. V
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SPRAGUE, A. A., 2ND
STONE, MELVILLE E.

DECEASED, 1917.

ADAMS, GEORGE E.
FIELD, HENRY

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ALDIS, OWEN F.
ALLEN, BENJAMIN

BAKER, MISS ISABELLE
BANKS, ALEXANDER F.
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BARRETT, ROBERT L.
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BLAIR, WATSON F.
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CRANE, RICHARD T.
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CUMMINGS, D. MARK

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PATTEN, HENRY J.

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PORTER, H. H.

RAWSON, FREDERICK H.
REAM, MRS. CAROLINE P.
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SMITH, ORSON
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SWIFT, LOUIS F.

THORNE, CHARLES H.
THORNE, GEORGE R.
THORNE, ROBERT J.

WILLARD, ALONZO J.
WILSON, WALTER H.

DECEASED, 1917.

ADAMS, GEORGE E.
FIELD, HENRY
FRANTZIUS, FRITZ VON
ISHAM, MRS. KATHERINE PORTER

ANNUAL MEMBERS.

ADAMS, CYRUS H.
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SCHWARTZ, G. A.
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SHORTALL, JOHN L.

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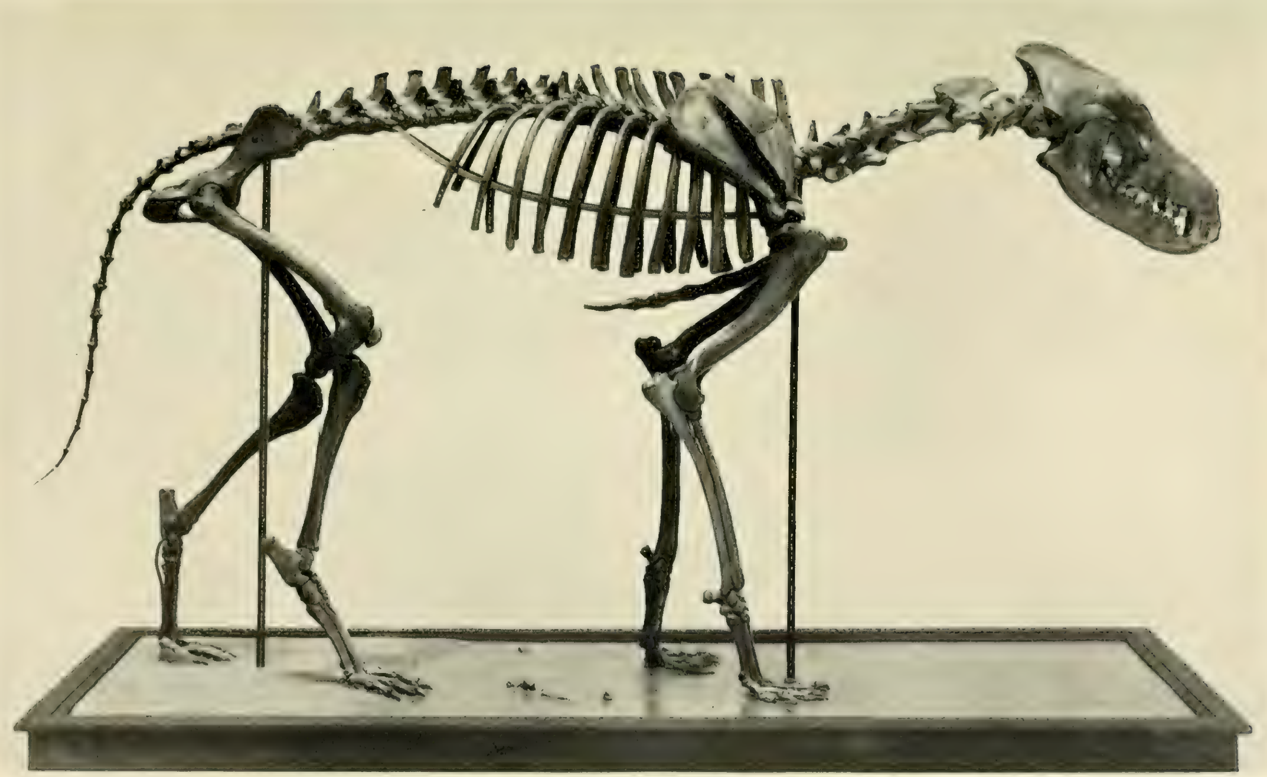
WALKER, WILLIAM B.
WALLER, EDWARD C.
WHITE, A. STAMFORD
WHITEHEAD, W. M.
WILSON, MRS. E. C.
WILSON, M. H.



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